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ABSTRACT

In 1973, Tennessee Technological University developed and implemented a model for systematic data gathering and for evaluating its teacher education programs. During the twelfth year (1984-85) of the operation of the project, three distinct groups of graduates who had completed either the bachelor or master's degree program were studied. The basic instruments included were: (1) University records; (2) principals' evaluations; (3) the California F-Scale; (4) a measure of satisfaction of the students taught by graduates; and (5) classroom observations. The study's major findings for the first-year subjects were similar to those reported in the past 11 years of the study. Comparisons between bachelor and master's degree graduates indicated few significant differences; although, in general, bachelor degree students appeared to be functioning at a slightly higher level than the master's degree graduates. This was in opposition to findings of previous years. Based on the results of the study and the applications that have been made, the model has become a permanent operational feature of the teacher education programs at Tennessee Technological University. Appendixes include a six-page list of reports and the instrumentation used in this study. (Author/CB)

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STUDY OF THE TEACHER PREPARATION PROGRAMS OF TENNESSEE TECHNOLOGICAL UNIVERSITY

REPORT 85-2

TENNESSEE TECHNOLOGICAL UNIVERSITY TEACHER EVALUATION MODEL--YEAR XII

Report Prepared by:

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December 1985

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Abstract

TENNESSEE TECHNOLOGICAL UNIVERSITY TEACHER EVALUATION MODEL--YEAR XII

In 1973 Tennessee Technological University developed and implemented a model for systematic data gathering and for making evaluations of the programs in teacher education. The specific objective for the use of the longitudinal model was the evaluation and subsequent modification and improvement of the programs for the preparation of teachers. During the twelfth year (1984-85) of the operation of the project, three distinct groups of graduates who had completed either the B.S. or M.A., with major emphasis in a teaching field participated in the study. The sample size by year of graduation was as follows: 1982--15, 1983--21, and 1984--40. Detailed information was collected on each subject by use of standardized and locally developed instruments. The basic instruments have remained the same during the twelve years of the study and include: (1) University records, (2) principals evaluations, (3) the California F-Scale, (4) a measure of the satisfaction of the students of the graduates, and (5) observation in the classrooms of the subjects by trained observers using Flanders Interaction Analysis, the Classroom Observation Record, and the Tuckman Teacher Feedback Form. Descriptive and comparative statistics were computed.

The major findings of the study for the first year subjects were similar to those reported in the past eleven years of the study. Comparisons between the B.S. and M.A. graduates indicated few significant differences. In general the first year B.S. graduates appeared to be functioning at a slightly higher level than the M.A. graduates. This was in opposition to the findings of previous years. Comparisons of 1984 graduates with those first year participants in 1982 and 1983 indicated few differences. Graduates in their second and third year of participation in the project appeared to be functioning at a higher level than first year graduates. Conclusions and recommendations were advanced from the results of the study that are being used to modify and improve the teacher education programs of Tennessee Technological University.

Based on the results of the study and the applications that have been made, the model has become a permanent operational feature of the teacher education programs of the University. Plans are being made to modify the overall design of the model based on recent educational research on evaluation methodology and the characteristics of good teachers. Also, major funding is being sought for the establishment of a center on teacher education program evaluation at the University.

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PREFACE

Followup evaluation has been an integral part of the teacher education programs of Tennessee Technological University for the past 15 years. Followup studies of all graduates have been conducted on a regular basis and special studies have been carried out to provide input for the overall operation of the programs of the University. In 1973, a longitudinal model was developed and implemented for conducting followup evaluations. During 1984-85 this model was used for the twelfth year to gather data. The application of the model is believed to be one of the longest ongoing teacher evaluation projects in the nation. The project has received national recognition as an exemplary program for teacher evaluation. In July, 1985, the University was honored by the American Association of State Colleges and Universities. The project received a Showcase of Excellence Award in the category of Creating New Strategies for Ensuring the Quality of Education Graduates.

The purpose of this report was to present the findings of the twelfth year of the application of the model. The report is by no means complete, however, it serves to inform the reader of the basic procedures used and the preliminary findings of the twelfth year of the study. In order to conserve resources, only essential information was presented. Readers of the report are invited to pose additional research questions and to request additional data from the files of the project. Reports of the results of the application of the Tennessee Technological University Teacher Evaluation Model for the period 1973-74 through 1983-84 are available through the ERIC system or from the Office of the Associate Dean of the College of Education at Tennessee Technological University.

The author of this report is indebted to the efforts of several individuals that have been extensively involved in working with the project during the past year. These individuals include: Barbara Qualls and Margaret Wallace, graduate assistants; Patricia A. Eaves, secretary; and Sharon A. Heard, analyst. In addition thanks are extended to all principals, teachers, superintendents, and other school personnel that provided technical assistance, data, and allowed the project staff to work with them in various ways.

Jerry B. Ayers
Associate Dean
College of Education
December, 1985

CHAPTER I

INTRODUCTION AND PROCEDURES

Beginning in 1970, a series of separate studies was begun related to the evaluation of students enrolled in and graduates of the teacher education programs of Tennessee Technological University. The research was systematic and designed to meet standards established by the National Council for the Accreditation of Teacher Education as well as to answer such questions as course effectiveness, the proper sequencing of courses, factors related to achievement, success of the graduates after entering the teaching profession, better methods of instruction, and the degree of achievement of the stated objectives of the teacher education program. It should be noted that there are companion studies designed to evaluate the programs for the preparation of school service personnel at the M.A. and Ed.S. levels.

The works of Sandefur and Adams (1, 2, 3) led to the development of the Tennessee Technological University Teacher Evaluation Model. This model was employed to evaluate the graduates of the programs of the University designed to prepare teachers at the bachelor's and master's levels. During 1973-74 the Evaluation Model was implemented and operated through 1984-85 with funds available from the budget of the College of Education of the University. The results of the application of the model were summarized in a series of yearly reports (see Appendix A, items 20, 27, 34, 37, 39, 45, 54, 59, 63, 69, 75). These reports and others are available through the Office of the Associate Dean of the College of Education of Tennessee Technological University or through the ERIC System.

The twelfth year of the application of the Evaluation Model was initiated in the fall of 1984. The remainder of this chapter describes the purpose of the twelfth year of the operation of the model and limitations of and the procedures used in conducting the major parts of the study (see Appendix A, item 62). Chapter II contains a summary of the analyses of selected data accumulated on graduates who were participants in the project for the second and third year. Chapter III includes presentations and interpretations of the data collected as a result of a study of the 1984 graduates of the teacher education programs. Chapter IV contains a summary, conclusions, and recommendations and tentative plans for the thirteenth year of the study to be conducted during 1985-86. Appendix A includes a list of all evaluative studies related to teacher education that have been conducted as a part of the efforts of the Office of the Associate Dean of the College of Education and through other units of the University. Appendix B contains a description of the instrumentation used in the study.

Purposes

The purposes of the study reported in this document included the following:

1. To provide information for faculty and administrators concerned with teacher education programs at Tennessee Technological

University in making decisions pertinent to curriculum evaluation and development.

2. To aid in the process of making long-range plans for improving the total program of the University with particular emphasis on the teacher education program.

3. To continue the development and refinement of the Tennessee Technological University Teacher Evaluation Model.

Specific objectives to be accomplished as a part of this study were as follows:

1. To continue studying in a longitudinal manner those subjects who had previously participated in the application of the Model (1982-83 through 1983-84).

2. To provide a descriptive profile of a sample of 1984 B.S. and M.A. graduates of the teacher education programs of Tennessee Technological University.

3. To determine relationships among selected variables that were measured as a part of the total study.

4. To provide comparisons between the graduates of the teacher education programs of Tennessee Technological University with those who might be considered as effective teachers as defined in the literature of teacher education.

5. To disseminate relevant research data to the faculty and administration of the University.

6. To provide information for curriculum evaluation and development based on empirical research data.

7. To continue to evaluate the procedures employed in the study and to make long-range plans for modifications and refinement of the basic Evaluation Model.

Limitations

The general limitations for this study were primarily concerned with sampling techniques:

1. Subjects for the study were individuals who were 1984 graduates of a bachelor's or master's program at Tennessee Technological University designed to prepare themselves as teachers, or they were individuals who participated in the study during the period 1982-1983 through 1983-1984.

2. Subjects were teaching in the State of Tennessee within approximately a 75-mile radius of Cookeville, Tennessee. (Approximately 65 percent of all graduates of the teacher education programs of the University that were teaching

resided within the specified geographical limits of the study.)

3. The subjects volunteered to participate in the study.

4. The subjects who participated in the study received the permission of their principals and superintendents.

5. The sample sizes of the 1982 and 1983 graduates were reduced each year by about 50 percent due to attrition from the teaching profession or moving out of the geographical limits of the study. The number of individuals who have only the bachelor's degree is disproportionate in the total sample. Therefore, the findings of the study may be limited in their applicability to the population of graduates from the University and also other institutions.

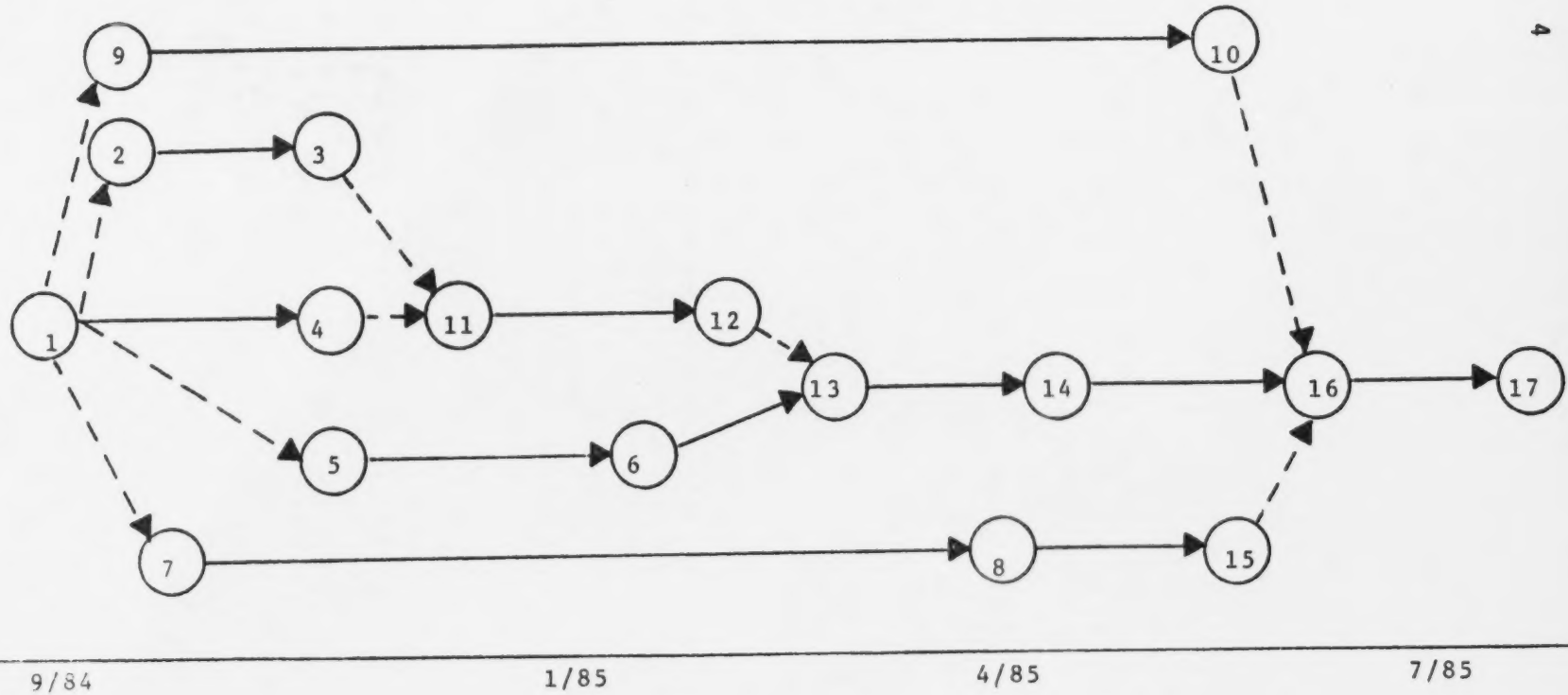
Limitations 1 through 4 above were imposed in order to make the study more feasible regarding the followup of the graduates. Voluntary participation was deemed necessary due to the extensive collection of data and completion of forms. The limitation of a 75-mile radius of Cookeville, Tennessee, was necessary because of the limited travel funds available and the time available for the research assistants to visit in the classrooms of the participating subjects.

Procedures

The purposes of this section was to provide the reader with a brief description of the procedures employed in collecting data utilized in this study. This section was concerned specifically with selection of subjects, implementation of the study, training of staff, and methods of data collection and analysis. Figure 1 shows a PERT chart of the major activities of the project from September 1984 through August 1985. Appendix B contains copies of the instrumentation used in the study.

Selection of Subjects

Three groups of subjects participated in the 1984-85 phase of the project. The first group of individuals (1982 graduates) was participating in the project for the third year, while the second group (1983 graduates) was participating for the second year. The third group consisted of those individuals that received either the B.S. or M.A. in 1984. Table 1 shows a summary of the number of individuals (by year of graduation) participating in each phase of the study, and Table 2 shows a summary of the grade level in which the subjects were teaching during 1984-85. Table 3 shows a comparison of sample size across all years from which actual usable data were collected.



Summary of Activities

1-4 Finalize Plans for Visiting Subjects in 1982 and 1983 Phases of Study	11-12 Make School Visits on 1982 and 1983 Graduates
2-3 Training of Observers	6-13 Select Sample of 1984 Graduates for Study as Part of Followup
5-6 Survey all 1984 Graduates	13-14 Make School Visits on 1984 Graduates
7-8 Conduct Related Studies	8-15 Prepare Reports of Related Studies
9-10 Maintain Contact With Other Projects and Survey New Literature	16-17 Make Plans for 13th Year of Followup

Figure 1. PERT Chart of Major Activities for 1984-85.

Table 1

NUMBER OF SUBJECTS BY YEAR OF GRADUATION PARTICIPATING IN EACH PHASE OF STUDY

Phase of Study	1982	1983	1984	Total*
1982-1983	29/18	--	--	51/18
1983-1984	16/8	26/16	--	56/24
1984-1985	11/4	13/8	25/15	49/27

*No. M.A./No. B.S.

Table 2

SAMPLE FOR INTENSIVE FOLLOWUP - 1984-85

Year	K	1-3	4-7	8-12*	Total*
1982	1/0	1/2	6/2	3/0	11/4
1983	1/0	1/2	4/4	7/2	13/8
1984	3/1	7/4	8/4	7/6	25/15
Total	5/1	9/8	18/10	17/8	49/27

*No. M.A./No. B.S.

Table 3

COMPARISON OF SAMPLE SIZES ACROSS ALL YEARS OF STUDY

Year of Graduation	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984
1973	57	35	27	21	15	--	--	--	--	--	--	--
1974	--	48	26	22	14	9	--	--	--	--	--	--
1975	--	--	44	23	17	11	5	--	--	--	--	--
1976	--	--	--	26	16	11	6	--	--	--	--	--
1977	--	--	--	--	50	26	19	10	--	--	--	--
1978	--	--	--	--	--	45	22	12	--	--	--	--
1979	--	--	--	--	--	--	61	33	13	--	--	--
1980	--	--	--	--	--	--	--	57	27	19	--	--
1981	--	--	--	--	--	--	--	--	47	25	14	--
1982	--	--	--	--	--	--	--	--	--	47	24	15
1983	--	--	--	--	--	--	--	--	--	--	42	21
1984	--	--	--	--	--	--	--	--	--	--	--	40
Total	57	83	97	92	112	102	113	112	87	91	80	77

As a part of the routine followup activities of the Office of the Associate Dean, all 1984 graduates of the teacher education programs were contacted in the late fall of 1984 (153 B.S. graduates who were eligible for a teaching certificate and 147 M.A. graduates). As a result of this initial survey (Appendix A, no. 79), all graduates who were teaching within the defined geographical limits of the project were contacted by telephone and asked to participate in the study. A total of 15 B.S. and 25 M.A. graduates volunteered to participate (see Tables 1 and 2).

Figure 2 shows a map of selected portions of Tennessee. The numerals within each county indicate the number of individuals who participated in the study during the 1984-85 phase of the study. Table 4 shows a summary of the number of individuals by year of graduation participating from each county.

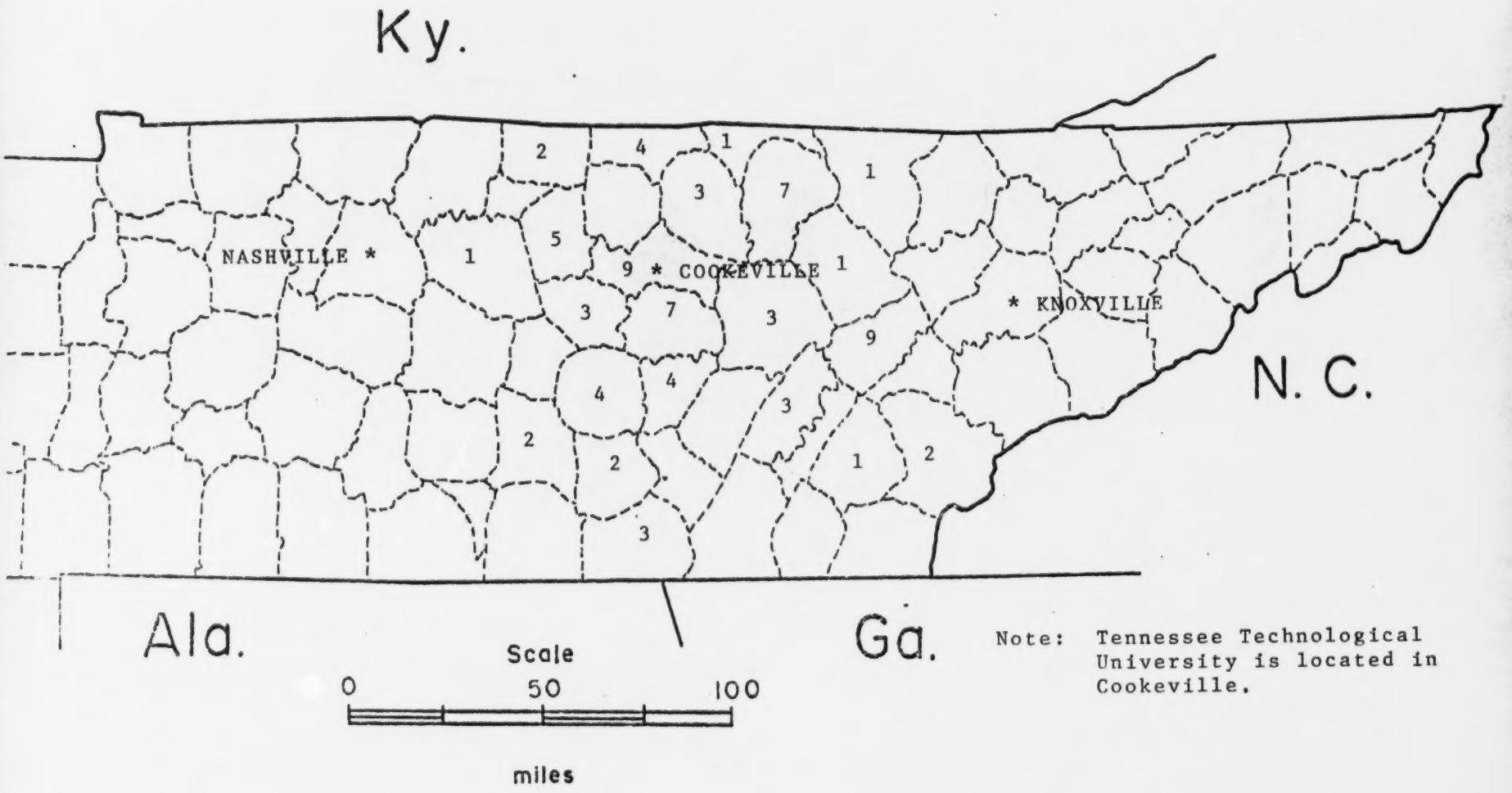


Figure 2. Number of Participants by County in 1984-85 Phase of the Study.

Instrumentation

Instrumentation for the 1984-85 phase of the study was identical to that used during the past several years of the project. The reader is referred to Report 82-1 (Appendix 62) and Appendix B for more information with regard to instrumentation.

Table 4

NUMBER OF SUBJECTS BY DATE OF GRADUATION AND COUNTY IN WHICH TEACHING 1984-1985

County	Number
Clay	4
Coffee	2
Cumberland	3
DeKalb	3
Fentress	7
Grundy	2
Macon	2
Marion	3
McMinn	1
Monroe	2
Morgan	1
Overton	3
Pickett	1
Putnam	9
Rhea	3
Roane	9
Scott	1
Smith	5
Van Buren	4
Warren	4
White	7
Wilson	1
Total	77

Training of Observers

The procedures for the training of observers were outlined in detail in Report 82-1 (Appendix A, no. 62).

Collection of Data

Data for this study were collected by mail surveys, interviews, and

observations in the classrooms of graduates. Initially, all subjects were contacted by mail and dates were set for observational visits by the graduate research assistants (both previous subjects and new subjects in the study). These dates were verified with the appropriate administrative authorities in each school and school system. A letter explaining the project in detail was sent to all subjects, principals, and superintendents. The subjects, their principals, and superintendents were invited to make comments and suggestions for conducting the study.

Each subject was visited on at least one occasion by a trained (observer) graduate assistant. The observer spent approximately a half day in each subject's classroom and completed from two to six 20-minute periods of observation using a ten category system of interaction analysis. At the completion of all observations, the Classroom Observation Record and the Tuckman Teacher Feedback Form were completed.

The Student Evaluation of Teaching (SET-I) was administered to the students of teachers in grades 4 through 12. The Student Evaluation of Teacher (SET-II) was administered to students of subject's in grades K-3. While the students were completing the appropriate version of the SET, subjects who were participating in the project for the first year completed the California F-Scale.

The observer interviewed each graduate with regard to his®her opinions and ideas about the teacher preparation program of the University. Also, the observer asked each principal to complete the Teacher Evaluation by Supervisor form.

Pertinent data such as quality point average, National Teacher Examination scores, etc. were collected from the permanent records of all 1984 graduates (see Report 82-1 and Appendix B of this document for more details relative to the collection of data).

Analyses of Data

Basic descriptive and inferential statistical methods were used to analyze the data. The statistical techniques were described in more detail at the appropriate points in this report.

Summary

In summary, this chapter contains a brief overview of the total operation of the 1984-85 phase of the longitudinal study of the graduates of the teacher education programs of Tennessee Technological University. Included in this chapter was a summary statement of the major purposes of the project, limitations of the study, and major procedures employed in conducting the project. Data from the graduates were gathered from four major sources including self or personal, from supervisors and principals, students of the graduates, and by independent observers. Included in the chapter was a listing of the major instruments used in gathering data from the four primary sources. The major purposes and procedures of the project have remained virtually unchanged over the eleven years of study. It was

felt the information available from this report, the companion reports completed during the period 1974 through 1984, and Report 83-3 would be useful to those individuals attempting to replicate this study. It should be noted that additional information and specifics related to methodology employed in this study were available from the Office of the Associate Dean of the College of Education.

References

1. Sandefur, J.T. An Illustrated Model for the Evaluation of Teacher Education Graduates, Washington: American Association of Colleges for Teacher Education, 1970.

2. Adams, Ronald D. Western Kentucky University's Teacher Preparation Evaluation Model, Phase I, Cycle I. Annual Report. Bowling Green, KY: Office of Educational Research, Western Kentucky University, 1972.

3. Sandefur, J.T. and Ronald D. Adams. "An Evaluation of Teaching: An Interim Research Report," Journal of Teacher Education, 27 (1): 71-6, Spring 1976.

CHAPTER II

COMPARISONS OF SECOND AND THIRD YEAR FOLLOWUP PARTICIPANTS

The Tennessee Technological University Teacher Evaluation Model, was designed to be used to gather data about graduates for up to five years. From 1973 through 1978 this pattern was followed. However, beginning in 1979, data were collected for only three years because of financial limitations on the project and the lack of ability to interpret and use the data fully. The purpose of this chapter was to show some qualitative comparisons of data for second and third participants in the project. It will be noted that the sample sizes in some cases were small. However, it is felt that the reader can gain some general ideas about the graduates of the University after they have been teaching for two or three years after receiving their last degree.

In order to simplify the tables the reader should keep in mind the following:

1. 2nd year refers to those 1983 graduates who were participating in the project for the second year.

2. 3rd year refers to those 1982 graduates who were participating in the project for the third year.

Personal Variables

Comparisons of personal variables were limited due to attrition from the followup study. Also, during the middle of the three year cycle the National Teacher Examinations changed, making it impossible to equate across forms. Table 5 shows the mean F-Scale scores for the various groups that were in tact. As has been in evidence in the past, secondary teachers tend to have higher F-Scale scores indicating they are more authoritarian in their beliefs. The graduates teaching in the elementary grades (both B.S. and M.A. graduates) achieved mean scores of about 100. This has been a typical pattern across the 12 years of the study. Because of attrition from the study and the resulting small sample sizes, no attempt was made to apply statistical tests to the data. In the future every effort will be made to increase sample sizes and to prevent attrition from the study. These variables may be very important in the teaching process and warrant continued study.

Table 5

COMPARISON F-SCALE SCORES FOR SECOND YEAR (1983) AND THIRD YEAR B.S. AND M.A. GRADUATES BY TEACHING LEVEL

	N	$\bar{X}$	SD
Second Year			
B.S. Elementary	6	101.7	3.3
M.A. Elementary	7	99.9	17.1
M.A. Secondary	8	108.6	14.8
Third Year			
B.S. Elementary	3	88.0	14.7
M.A. Elementary	5	101.4	25.0

Principal's Ratings

In general principal's ratings of second year participants in the followup study were higher than for third year participants. Individuals who had received the master's degree received higher mean ratings than those with only the bachelor's degree. In all cases, however, statistical tests of significance indicated no differences between the various groups studies. Table 6 shows a summary of the mean principal's ratings for the third year (1982) bachelor's and master's graduates who were teachers in the elementary grades. There were no differences between the two groups. Table 7 shows a comparison of mean principal's ratings for the second year (1983) graduates. The master's level graduates received higher mean ratings than those who were teaching in the elementary grades. The data were similar to that reported in earlier years of the longitudinal study.

Table 6

COMPARISON OF PRINCIPAL'S RATINGS OF THIRD YEAR (1982)
B.S. and M.A. ELEMENTARY PARTICIPANTS

Factor	B.S. (N=5) $\bar{X}$	B.S. (N=5) SD	M.A. (N=5) $\bar{X}$	M.A. (N=5) SD
I Subject Matter Competence	4.2	0.8	4.2	0.8
II Relations with Students	4.6	0.5	4.8	0.5
III Appropriateness of Assignments	4.4	0.9	4.2	0.8
IV Overall Effectiveness	4.4	0.9	4.6	0.5

Table 7

COMPARISON OF PRINCIPAL'S RATINGS FOR SECOND YEAR 1983 PARTICIPANTS
BY DEGREE AND TEACHING LEVEL (ELEMENTARY OR SECONDARY)[1]

Factor	B.S. Elem. (N=6) $\bar{X}$	B.S. Elem. (N=6) SD	M.A. Elem. (N=7) $\bar{X}$	M.A. Elem. (N=7) SD	M.A. Sec. (N=8) $\bar{X}$	M.A. Sec. (N=8) SD
I Subject Matter Competence	4.3	0.5	4.8	0.4	4.8	0.4
II Relations with Students	4.5	0.6	4.8	0.4	4.4	0.5
III Appropriateness of Assignments	4.0	0.5	4.4	0.5	4.5	0.5
IV Overall Effectiveness	4.0	0.0	4.8	0.4	4.4	0.5

[1] N=1 for B.S. Secondary. Therefore the data were omitted.

Student Evaluations

The SET-I was administered in the classrooms of graduates who were teaching in grades 4 and above. Because of the small sample sizes, it was not possible to make any meaningful comparisons for either the B.S. or M.A. graduates. The data were therefore omitted from this report. Table 8 shows the mean scores achieved on the SET-I by the seven second year master's graduates who were teaching at the secondary level. An examination of the data indicated mean scores similar to those previously reported in earlier years of the study.

The SET-II was administered in the classrooms of graduates who were teaching below the fourth grade. Because of the small sample size, the data were omitted from this report.

Independent Observers

Data were collected by independent observers using three instruments including Flanders Interaction Analysis, the Classroom Observation Record, and the Tuckman Teacher Feedback Form. The remainder of this section was subdivided based on the three instruments.

Table 8

SET-I SCORES FOR SECOND YEAR M.A. SECONDARY GRADUATES (N=7)

	Factor	$\bar{X}$	SD
I	Friendly and Cheerful	340.9	21.6
II	Knowledgeable and Poised	347.9	25.3
III	Lively and Interesting	284.0	44.3
IV	Firm Control (Discipline)	287.9	29.6
V	Non-Directive (Dem. Process)	226.0	38.3
	Composite Score	301.6	17.8

Flanders Interaction Analysis

The mean values of five ratios derived from the use of Flanders Interaction Analysis in the classrooms of B.S. and M.A. graduates teaching in the elementary grades were shown in Table 9. The data were comparable to that presented in earlier years for graduates with similar backgrounds and experience in the classroom. Third year elementary graduates at both the B.S. and M.A. levels appeared to be using more indirect teaching than second year graduates. The other ratios were similar across the four groups and there were no significant differences.

Corresponding Flanders data for the second year M.A. graduates teaching at the secondary level were shown in Table 10. The ratios for the secondary graduates were similar to those of the elementary graduates. There were few differences across the various groups. However, it was noted that the student talk to teacher talk for the secondary graduates was well below that for the elementary graduates. This seems to be in evidence in earlier phases of the application of the longitudinal model.

Table 9

COMPARISON OF FLANDERS RATIOS FOR SECOND AND THIRD YEAR B.S. AND M.A. ELEMENTARY GRADUATES

Ratio	2nd Yr. B.S. (N=6)		2nd Yr. M.A. (N=7)		3rd Yr. B.S. (N=5)		3rd Yr. M.A. (N=5)	
	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD
I/D	0.59	0.22	0.46	0.20	0.62	0.84	0.63	0.40
i/d	0.33	0.19	0.27	0.19	0.57	0.13	0.50	0.50
ST/TT	0.82	0.43	0.75	0.35	0.59	0.21	0.78	0.80
Sil/Tot	0.46	0.10	0.46	0.15	0.50	0.17	0.45	0.26
Lec/Tot	0.43	0.11	0.37	0.16	0.40	0.14	0.39	0.18

Table 10

FLANDERS RATIOS FOR SECOND YEAR M.A. SECONDARY GRADUATES (N=8)

	$\bar{X}$	SD
I/D	0.91	0.63
i/d	0.36	0.21
ST/TT	0.50	0.16
Sil/Tot	0.35	0.21
Lec/Tot	0.60	0.22

Classroom Observation Record

Mean scores derived from the use of the Classroom Observation Record (COR) in the classrooms of elementary teachers were shown in Table 11. In general second year subjects were rated slightly higher than third year subjects at both the B.S. and M.A. level. There were no significant differences between the four groups. Mean COR scores for the second year M.A. graduates teaching at the secondary level were shown in Table 12. The secondary graduates appeared to receive slightly lower scores than the elementary graduates. This trend has been in evidence in earlier years of the study.

Table 11

COMPARISON OF COR FACTOR SCORES FOR SECOND AND THIRD YEAR B.S. AND M.A. ELEMENTARY GRADUATES

	2nd Yr. B.S. (N=6)		2nd Yr. M.A. (N=12)		3rd Yr. B.S. (N=5)		3rd Yr. M.A. (N=5)	
Factor	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD
I	48.0	4.3	45.6	1.8	44.6	5.1	43.8	3.4
II	61.2	4.0	61.6	3.1	59.6	9.3	60.6	4.4
III	22.6	1.2	23.6	1.7	22.8	2.0	21.8	2.4

Table 12

COR FACTOR SCORES FOR SECOND YEAR M.A.
SECONDARY GRADUATES (N=8)

Factor	$\bar{X}$	SD
I	41.7	1.3
II	59.3	7.0
III	21.5	2.1

Tuckman Teacher Feedback Form

Table 13 shows the results of the use of the Tuckman Teacher Feedback Form (TTFF) in the classrooms of those graduates who were teaching in the elementary grades. Second year and third year master's graduates were generally rated higher than second year bachelor's level graduates. Also, in general second year graduates were rated higher than third year graduates. Data for second year master's graduates who were teaching at the secondary level were shown in Table 14. The results of the use of the TTFF were comparable with those obtained in other years of the application of the evaluation model.

Table 13

COMPARISON OF TUCKMAN RATINGS FOR SECOND AND THIRD YEAR B.S. AND M.A. ELEMENTARY GRADUATES

	2nd Yr. B.S. (N=5)		2nd Yr. M.A. (N=12)		3rd Yr. B.S. (N=5)		3rd Yr. M.A. (N=8)	
Factor	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD
I Creativity	31.0	4.9	30.1	3.4	30.6	6.8	31.2	3.9
II Dynamism (Dominance of Energy)	26.8	1.7	25.1	1.8	28.6	4.7	28.2	2.8
III Organized Demeanor (Organization and Control)	40.7	3.7	41.0	1.9	39.6	6.1	38.2	4.5
IV Warmth and Acceptance	38.3	2.7	38.3	2.4	38.6	3.1	37.6	2.2

Table 14

TUCKMAN RATINGS FOR SECOND YEAR M.A. GRADUATES TEACHING AT THE SECONDARY LEVEL (N=8)

Factor	$\bar{X}$	SD
I Creativity	32.4	3.5
II Dynamism (Dominance of Energy)	31.6	3.6
III Organized Demeanor (Organization and Control)	35.5	7.5
IV Warmth and Acceptance	36.0	3.6

Discussion

An examination of the small number of scores derived from the F-Scale indicated secondary teachers and those who had received the master's degree might be more authoritarian in their beliefs. Principal ratings were mixed. Master's graduates were rated slightly higher than those who had completed only the B.S. Comparisons with ratings of all first year teachers who had participated in the study indicated few differences in perceived level of performance.

Student ratings of master's level graduates who were teaching at the secondary level were comparable to those reported in other phases of the study. Overall third year teachers were rated slightly higher than second year teachers. A comparison of second and third year teacher ratings with those given first year teachers indicated that, as a group, more experienced teachers were perceived as being more effective by students. Ratings given teachers in the lower elementary grades were similar to those reported in previous years of the study.

Ratings given by independent observers were mixed. An examination of the ratios derived from Flanders Interaction Analysis indicated second and third year teachers were performing at about the same level as first year teachers. However, an examination of the results of the administration of the Classroom Observation Record and the Tuckman Teacher Feedback Form indicated second and third year teachers received lower ratings than first year teachers.

In general, it was found that second and third year teachers were functioning at a level comparable to or greater than for first year teachers. Attrition from the followup study, however, leads one to question the results of this aspect of the study. There are too many variables that cannot be controlled in a study of this nature.

The results of the study indicated that the teachers were well organized in the classroom, competent in the subject(s) taught, had good rapport in the classroom, were perceived as being friendly and cheerful, and were confident and poised in the classroom. On the negative side, the second and third year graduates need to be more stimulating in the classroom, and use more praise and other indirect teaching methods. Elementary teachers need to encourage more independence in their children and encourage self-esteem.

What are the implications of this part of the study for improving the programs in teacher education at Tennessee Technological University? It is difficult to say at this point. There is a definite need to continue the inservice aspects of the programs for the programs of the College of Education. In the early years in the classroom, there is an apparent need for additional help for teachers in developing teaching strategies, classroom management, and the like.

Summary

This chapter contained the results of the followup of graduates who had received the B.S. or M.A. and had participated in the application of the Tennessee Technological University Teacher Evaluation Model for the second and third year. The results of the study were presented in a qualitative manner and indicated that second and third year teachers were performing similar or at a slightly higher level than first year teachers. The results of the study were inclusive and provided only limited information that may be of use in improving the teacher education programs of the University.

CHAPTER III

PRESENTATION AND ANALYSES OF DATA FOR 1984 GRADUATES AND COMPARISONS WITH 1981, 1982 AND 1983 GRADUATES

Chapter III contains a presentation and analyses of data for those individuals who received the B.S. or M.A. in 1984 and were participating in the study for the first time. Also shown were comparisons of the data with other first year participants, i.e., those who completed their last degrees in 1981, 1982 or 1983 and participated in the study during the following years. Initially 40 individuals (15 at the B.S. and 25 at the M.A. levels) agreed to serve as subjects for the study. Since previous studies had indicated there were few differences in those individuals teaching in the elementary grades and those teaching at the secondary level, the data were combined for some comparisons. Also, data for bachelor's and master's graduates were combined for certain analyses.

This chapter is divided into five sections. The first section contains an analyses of the correlation of selected variables for the total group of 1984 graduates. The second section shows comparisons between the B.S. and M.A. graduates. The third and fourth sections contain, respectively, comparisons of the data across four years for the B.S. and M.A. graduates. The fifth section includes a brief chapter summary.

Correlation Analyses

Table 15 shows the sample size, means, standard deviations and intercorrelation matrix for selected variables for those 1984 graduates. Correlations of the variables with the SET-I were omitted from this phase of the study. The descriptive information related to means and standard deviations will be discussed later in the Chapter.

Generally, the correlations were relatively small. Many of those that did reach the .05 level of significance were in evidence in earlier years of the study. High intercorrelations were noted within the four factors derived from the Principal's questionnaire, the three factors of the Classroom Observation Record, and the three factors from the Student Evaluation of Teacher instrument. Significant positive correlations were noted between the principal's overall rating of effectiveness and the organization factor from the COR and from three of the four factors of the Tuckman Teacher Feedback Form. Thus it appeared that principals and independent observers were perceiving many of the same characteristics of the graduates. In general the three factors derived from the SET-II were correlated negatively with factors from the COR ($p < .05$). These findings indicated that the independent observers and children of the graduates were viewing certain characteristics in different ways.

Correlations within the Flanders Interaction Analysis factors were similar to those reported in earlier years of the study. Again, there were significant relationships noted between the various factors of the COR and the Tuckman. Thus there was consistency in the two rating instruments.

Table 15

CORRELATION MATRIX FOR SELECTED VARIABLES FOR 1984 GRADUATES (N=40)*

	N	$\bar{X}$	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
1. PRIN-I	38	4.5	0.6	100	60	69	55	-13	-15	-39	-41	10	-11	-21	-13	-15	-01	29	17	-23	34	24	07	13
2. PRIN-II	38	4.6	0.6		100	57	59	11	14	-16	-08	-14	-01	-28	-03	10	09	09	19	-10	31	45	-06	-26
3. PRIN-III	38	4.4	0.7			100	72	-02	-03	-30	-21	08	-03	-13	-20	10	07	01	18	-01	17	24	19	-29
4. PRIN-IV	38	4.3	0.6				100	-03	-09	-43	-12	-04	01	-08	-07	35	28	17	38	03	46	40	02	-43
5. SET^2-RAPPORT	19	5.34	0.3					100	84	73	-27	-21	14	06	22	-35	-48	-26	-18	-19	-38	-07	15	-21
6. SET^2-STYLE	19	10.08	0.7						100	88	-34	-15	11	29	01	-51	-61	-13	-34	-26	-30	01	13	24
7. SET^2-ESTEEM	19	7.00	0.7							100	-24	-09	02	24	-02	-58	-73	-33	-51	-21	-50	-24	24	-17
8. I/D	39	0.81	0.94								100	-06	-20	40	35	16	19	-10	04	35	-24	-13	-09	-05
9. i/d	39	0.48	0.21									100	-01	-06	-61	03	16	11	01	-12	09	04	-08	26
10. ST/TT	39	0.46	0.21										100	-08	-12	02	07	-19	-06	-08	00	01	-01	-39
11. Sil/Tot	39	0.53	0.37											100	-05	02	13	08	13	34	-21	-03	-04	24
12. Lec/Tot	39	0.45	0.16												100	-01	-19	-16	-17	04	-20	-37	10	09
13. COR-I	39	45.9	2.5													100	73	41	48	09	56	48	-16	-32
14. COR-II	39	64.9	3.9														100	43	63	33	43	57	-34	-12
15. COR-III	39	23.1	2.3															100	40	09	29	27	-04	15
16. TUCK-I	39	33.0	4.5																100	50	40	49	-31	-23
17. TUCK-II	39	29.8	4.5																	100	-40	-02	-30	-08
18. TUCK-III	39	39.4	3.1																		100	70	-05	-12
19. TUCK-IV	39	38.3	2.2																			100	-34	-13
20. F-Scale	39	105.8	21.3																				100	-30
21. ACT Comp.	20	18.6	5.4																					100

*Decimal points on all correlations have been omitted. Underline indicates a correlation significant at or beyond the .05 level.

Comparison of B.S. and M.A. Graduates

Table 16 shows a comparison between the B.S. and M.A. graduates for scores achieved on the American College Test (taken prior to admission to the University) and the F-Scale. This table further shows a breakdown by teaching level, i.e., secondary or elementary. Those individuals who were teaching in Resource Rooms or otherwise associated with special education classes or programs were included with the elementary groups. An examination of the mean ACT scores for the B.S. elementary and B.S. secondary group indicated that there was a significant difference at the .05 level in favor of the secondary teachers. The B.S. graduates as a group had achieved higher mean ACT scores than the M.A. graduates.

An examination of mean F-Scale scores indicated the four groups tended to be less authoritarian in their beliefs than other groups. Mean scores were slightly higher when compared with other groups who have participated in the study in past years. However, mean scores for the B.S. samples were slightly higher than for the M.A. samples. This is reverse of the situation noted over the past several years of the study. No explanation can be offered for this observation.

Table 16

COMPARISON OF MEAN ACT COMPOSITE SCORES, AND F-SCALE SCORES FOR 1984 B.S. AND M.A. GRADUATES

Degree and Teaching Level	ACT			F-Scale		
	N	$\bar{X}$	SD	N	$\bar{X}$	SD
B.S. Elementary	6	18.7	4.1	9	100.0	10.3
M.A. Elementary	7	15.9	3.5	19	107.4	25.3
B.S. Secondary	5	23.6	6.7	6	111.2	24.4
M.A. Secondary	2	15.5	3.5	5	103.8	17.9
Composite	20	18.6	5.4	39	105.8	21.3

Table 17 shows mean principal ratings for the two groups (B.S. and M.A. by teaching level). In general there were no differences between the four groups. The B.S. elementary graduates received the highest overall ratings, followed by the M.A. elementary teachers and then the secondary teachers. Those with the master's degree received slightly lower overall mean ratings than those with only the bachelor's degree. This is reverse of the general trend noted in the past several years of the study.

Comparisons of SET-I scores for the B.S. secondary and M.A. secondary graduates were shown in Table 18. There were no differences between the two groups on each of the six factors. There was no pattern to this part of the study.

Data collected through administration of the SET-II were shown in Table 19. The SET-II was used in classrooms below the fourth grade. There were no differences between the two groups. It appeared that the children might be favoring those individuals who held only the B.S.

Mean ratios derived from administration of the Flanders Interaction Analysis were shown in Table 20. The data were mixed and somewhat different from that previously reported in earlier years of the application of the Model to gather information for program improvement. It was difficult to establish a pattern of interaction among the four groups.

Results from the administration of the Classroom Observation Record were shown in Table 21. There were basically no differences between the four groups on the three factors derived from the instrument. As a group master's level teachers received higher mean scores than bachelor's level graduates.

Data gathered by use of the Tuckman Teacher Feedback Form were shown in Table 22. Based on the application of the instrument, there appeared to be no differences in the four groups. There was no pattern to the data.

In summary, the results of this part of the study were mixed. The bachelor's level graduates appeared to be functioning at a higher level than the master's graduates, as measured by selected instruments, and vice versa. Also, it appeared that in some cases those individuals teaching in the elementary grades were functioning at a higher level than those teaching at the secondary level. In general the differences between the groups were small and not statistically significant.

Comparison of First Year B.S. Graduates 1981-84

This section contains a summary of the results of the comparisons of first year B.S. graduates for the period 1981 through 1984. Previous research indicated there were few differences between those individuals teaching at the elementary and secondary levels. The analysis of variance technique was employed to determine differences between the four groups.

Table 23 shows a comparison of the mean ACT and F-Scale scores for the four groups. Mean ACT scores for the 1984 graduates were higher than for the 1981 through 1983 samples (n.s.). F-Scale scores over the four years were mixed with there being no significant differences between the four groups.

Table 17

COMPARISON OF MEAN PRINCIPAL'S RATINGS FOR 1984 B.S. AND M.A. GRADUATES

Factor	B.S. Elem. (N=8)		M.A. Elem. (N=19)		B.S. Sec. (N=6)		M.A. Sec. (N=5)	
	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD
I Subject Matter Competence	4.8	0.5	4.6	0.5	4.2	0.4	4.2	0.8
II Relations with Students	4.8	0.5	4.6	0.6	4.5	0.8	4.2	0.8
III Appropriateness of Assignments	4.3	0.7	4.6	0.5	4.0	0.9	4.0	0.7
IV Overall Effectiveness	4.4	0.7	4.5	0.5	4.0	0.9	4.2	0.4

Table 18

COMPARISON OF MEAN SET-I SCORES FOR 1984 B.S. AND M.A. GRADUATES

Factor	B.S. Sec. (N=6)		M.A. Sec. (N=4)	
	$\bar{X}$	SD	$\bar{X}$	SD
I Friendly and Cheerful	321.3	45.9	351.3	16.5
II Knowledgeable and Poised	345.8	24.1	351.3	24.2
III Lively and Interesting	288.3	56.5	278.8	41.2
IV Firm Control (Discipline)	316.5	29.2	307.0	12.1
V Non-Directive (Democratic Process)	245.2	62.2	237.0	12.1
Composite Score	303.8	37.4	305.0	14.5

Table 19

COMPARISON OF MEAN SET-II SCORES FOR 1984 B.S. AND M.A. GRADUATES

	B.S. Elem. (N=5)		M.A. Elem. (N=14)	
Factor	$\bar{X}$	SD	$\bar{X}$	SD
Rapport	5.3	0.3	5.3	0.3
Stimulating Interaction Style	10.4	0.8	10.0	0.7
Fosterance of Self Esteem	7.3	0.8	6.9	0.6

Table 20

COMPARISON OF FLANDERS RATIOS FOR 1984 B.S. AND M.A. GRADUATES

Ratio	B.S. Elem. (N=9)		M.A. Elem. (N=14)		B.S. Sec. (N=6)		M.A. Sec. (N=5)	
	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD
I/D	0.34	0.25	0.60	0.36	1.64	1.28	1.45	1.23
i/d	0.55	0.26	0.51	0.19	0.40	0.27	0.34	0.13
ST/TT	0.56	0.29	0.46	0.16	0.35	0.07	0.45	0.29
Sil/Tot	0.58	0.31	0.53	0.40	0.65	0.44	0.58	0.33
Lec/Tot	0.41	0.15	0.49	0.09	0.72	0.14	0.68	0.27

Table 21

COMPARISON OF MEAN TUCKMAN FACTOR SCORES FOR 1984 B.S. AND M.A. GRADUATES

Factor	B.S. Elem. (N=9)		M.A. Elem. (N=19)		B.S. Sec. (N=6)		M.A. Sec. (N=5)	
	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD
I	45.7	2.3	46.2	2.5	44.8	2.8	46.6	2.8
II	63.7	3.4	66.0	4.0	64.2	3.4	64.0	4.7
III	23.8	1.2	23.4	1.6	22.0	2.3	22.2	4.9

Table 22

COMPARISON OF MEAN TUCKMAN FACTOR SCORES FOR 1984 B.S. AND M.A. GRADUATES

Factor	B.S. Elem. (N=9)		M.A. Elem. (N=19)		B.S. Sec. (N=6)		M.A. Sec. (N=5)	
	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD
I Creativity	32.0	2.9	34.7	4.5	30.3	4.4	31.6	5.4
II Dynamism (Dominance of Energy	27.4	2.5	30.8	4.2	29.2	5.9	31.0	6.0
III Organized Demeanor (Organization and Control)	40.3	3.7	39.3	2.8	38.3	3.4	39.4	2.9
IV Warmth and Acceptance	39.1	1.6	38.4	2.0	37.3	2.8	38.0	3.1

Table 23

COMPARISON OF ACT COMPOSITE AND F-SCALE SCORES FOR FIRST YEAR B.S. GRADUATES 1981-84

	1981			1982			1983			1984		
Test	N	$\bar{X}$	SD	N	$\bar{X}$	SD	N	$\bar{X}$	SD	N	$\bar{X}$	SD
ACT	10	17.2	3.6	14	16.1	3.8	15	19.1	4.4	11	20.8	5.0
F-Scale	10	107.9	20.4	14	101.6	22.1	15	106.4	16.8	15	104.5	17.2

An examination of the mean ratings given by principals was shown in Table 24. The differences were not significant, however, the 1983 graduates as a group were rated lower than 1981, 1982 or 1984 graduates. The 1983 group as a whole received lower ratings than other groups who were a part of the study in the 1970's.

Results from the administration of the SET-I were shown in Table 25. Results from the 1984 sample were not significantly different from those in 1981, 1982 or 1983. However, the group as a whole was rated slightly lower by students than were subjects in the earlier phases of the study. SET-II mean scores were shown in Table 26. The 1984 graduates were rated slightly higher than the 1981, 1982, or 1983 graduates. No explanation can be offered for this observation.

Table 24

COMPARISON OF MEAN PRINCIPAL'S RATINGS FOR FIRST YEAR B.S. GRADUATES 1981-84

	1981 (N=7)		1982 (N=39)		1983 (N=15)		1984 (N=14)	
Factor	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD
I Subject Matter Competence	4.4	0.5	4.1	0.7	3.9	0.7	4.5	0.5
II Relations with Students	4.4	0.5	4.4	0.7	4.3	0.7	4.6	0.7
III Appropriateness of Assignments	4.4	0.5	4.3	0.6	4.0	0.6	4.1	0.8
IV Overall Effectiveness	4.4	0.5	4.2	0.8	4.0	0.8	4.2	0.8

Table 25

COMPARISON OF MEAN SET-I SCORES FOR FIRST YEAR B.S. GRADUATES 1981-84

	1981 (N=3)		1982 (N=8)		1983 (N=9)		1984 (N=6)*	
Factor	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD
I Friendly and Cheerful	354.7	9.0	342.3	31.8	329.0	30.2	321.3	45.9
II Knowledgeable and Poised	327.0	48.8	345.0	41.3	351.7	28.9	345.8	24.1
III Lively and Interesting	310.9	33.2	331.7	22.0	313.9	37.3	288.3	56.5
IV Firm Control (Discipline)	269.7	56.0	312.4	24.8	295.8	12.1	316.5	29.2
V Non-Directive (Democratic Process)	241.3	13.3	267.5	38.7	255.0	40.3	245.2	62.2
Composite Score	280.3	45.5	325.3	40.6	307.8	24.4	303.8	37.4

*Secondary Teachers only.

Table 26

COMPARISON OF MEAN SET-II SCORES FOR FIRST YEAR B.S. GRADUATES 1981-84

	1981 (N=4)		1982 (N=8)		1983 (N=7)		1984 (N=5)	
Factor	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD
Rapport	5.24	0.11	5.86	0.56	5.31	0.36	5.34	0.23
Stimulating Interaction Style	9.67	0.21	10.53	0.88	9.60	0.53	10.42	0.78
Fosterance of Self Esteem	5.64	2.15	6.87	0.70	6.45	0.71	7.34	0.82

Mean ratios derived from the use of Flanders Interaction Analysis were shown in Table 27. The 1983 and 1984 groups were using significantly ($p < .05$) less indirect teaching in their classrooms than the 1981 and 1982 groups.

Table 28 shows mean Classroom Observation Record scores. There were no significant differences between the four groups. However, the 1983 group achieved a mean score much lower on Factor II than the other three groups. Scores derived from the administration of the Tuckman Teacher Feedback Form were shown in Table 29. Again there were no significant differences between the four groups. The 1984 group achieved higher mean scores than did the other groups.

In summary, there were few differences across the four groups of B.S. graduates. The scores derived from the various instruments were mixed across the period and there was no trend in evidence. The reader should keep in mind that the sample sizes for some of the groups were small and the use of extensive inferential statistics could lead to erroneous conclusions.

Table 27

COMPARISON OF MEAN FLANDERS RATIOS FOR FIRST YEAR B.S. GRADUATES 1981-84

	1981 (N=10)		1982 (N=18)		1983 (N=16)		1984 (N=15)	
Ratio	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD
I/D	1.15	1.74	1.87	3.88	0.89	1.23	0.86	1.08
i/d	0.68	0.61	0.82	0.54	0.43	0.28	0.49	0.27
ST/TT	0.47	0.25	0.72	0.38	0.60	0.30	0.48	0.22
Sil/Tot	0.52	0.45	0.33	0.60	0.30	0.21	0.60	0.38
Lec/Tot	0.31	0.13	0.37	0.20	0.31	0.20	0.53	0.14

Table 28

COMPARISON OF MEAN COR SCORES FOR FIRST YEAR
B.S. GRADUATES 1981-84

	1981 (N=10)		1982 (N=18)		1983 (N=16)		1984 (N=15)	
Factor	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD
I	42.0	1.6	41.8	1.5	39.9	5.8	45.3	2.6
II	64.4	2.3	65.2	2.4	57.2	12.8	63.9	3.4
III	22.9	2.0	23.0	2.1	21.6	3.2	23.1	1.8

Table 29

COMPARISON OF MEAN TUCKMAN SCORES FOR FIRST YEAR
B.S. GRADUATES 1981-84

		1981 (N=10)		1982 (N=18)		1983 (N=16)		1984 (N=15)	
Factor		$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD
I	Creativity	29.4	7.1	21.9	4.1	27.1	5.2	31.3	3.6
II	Dynamism (Dominance of Energy)	33.6	4.5	24.8	4.3	26.8	4.3	28.1	4.0
III	Organized Demeanor (Organization and Control)	35.3	2.7	30.8	6.1	32.8	4.5	39.5	3.5
IV	Warmth and Acceptance	35.3	2.3	34.3	7.4	36.2	6.8	38.4	2.1

Comparison of First Year M.A. Graduates 1981-84

This section contains a summary of the results of comparisons of first year M.A. graduates for the period 1981 through 1984. The analysis of variance technique was employed to determine differences between the three groups.

Table 30 shows a comparison of scores derived from the ACT and F-Scale. The number of M.A. participants for which ACT scores were available was small. Over the four year period the mean ACT score for the four groups has decreased by almost four full points. It should be kept in mind that the instrument was completed prior to the graduates' initial admission to college. Mean F-Scale scores for the four groups were not significantly different.

Table 30

COMPARISON OF ACT COMPOSITE AND F-SCALE SCORES FOR FIRST YEAR M.A. GRADUATES 1981-84

	1981			1982			1983			1984		
Test	N	$\bar{X}$	SD	N	$\bar{X}$	SD	N	$\bar{X}$	SD	N	$\bar{X}$	SD
ACT	14	19.6	4.3	7	16.7	5.5	-	-	-	9	15.8	3.5
F-Scale	30	106.0	21.4	27	103.3	17.2	25	103.1	18.1	24	106.5	23.3

Mean ratings given by principals were shown in Table 31. There were no significant differences in the four groups on each of the four variables nor were there any trends in evidence. As a whole the 1984 graduates received slightly higher mean ratings than the other three groups.

Comparisons of SET-I and SET-II scores were shown, respectively, in Tables 32 and 33. There were no significant differences between the four groups for scores on either instrument. However, there was some indication that over the four year period, the perceived level of functioning has decreased slightly.

Results of the use of Flanders Interaction Analysis were shown in Table 34. There were no significant differences across the four groups. The 1984 graduates appeared to be using less indirect teaching techniques than the other three groups. Table 35 shows the results of the administration of the Classroom Observation Record. The 1983 group rated significantly lower than the other groups on two factors of the instrument. This has been in evidence in other phases of the study. No explanation can be offered for these results. Table 36 shows a comparison of mean Tuckman Teacher Feedback Form ratings. There were no significant differences. However, the 1983 group was rated lower than the other three groups.

In summary there were few differences across the four groups of M.A. graduates who were participating in the study during their first year after receiving their last degree. In general, the 1983 graduates achieved slightly lower scores and ratings than the 1981, 1982 or 1984 graduates. The 1984 graduates appeared to be very much like the 1981 and 1982 groups.

Table 31

COMPARISON OF MEAN PRINCIPAL'S RATINGS FOR FIRST YEAR M.A. GRADUATES 1981-84

Factor	1981 (N=33) $\bar{X}$	1981 (N=33) SD	1982 (N=26) $\bar{X}$	1982 (N=26) SD	1983 (N=25) $\bar{X}$	1983 (N=25) SD	1984 (N=24) $\bar{X}$	1984 (N=24) SD
I Subject Matter Competence	4.4	0.6	4.4	0.6	4.4	0.5	4.5	0.6
II Relations with Students	4.5	0.7	4.5	0.6	4.5	0.6	4.5	0.7
III Appropriateness of Assignments	4.3	0.6	4.2	0.7	4.4	0.6	4.5	0.5
IV Overall Effectiveness	4.3	0.6	4.4	0.7	4.3	0.5	4.4	0.5

Table 32

COMPARISON OF MEAN SET-I SCORES FOR FIRST YEAR M.A. GRADUATES 1981-84

Factor	1981 (N=23) $\bar{X}$	1981 (N=23) SD	1982 (N=19) $\bar{X}$	1982 (N=19) SD	1983 (N=18) $\bar{X}$	1983 (N=18) SD	1984 (N=4)* $\bar{X}$	1984 (N=4)* SD
I Friendly and Cheerful	355.1	27.6	345.5	31.2	341.2	25.6	351.3	16.5
II Knowledgeable and Poised	359.6	14.7	351.7	20.1	353.3	18.2	351.3	24.2
III Lively and Interesting	307.4	44.3	304.3	33.3	292.1	37.8	278.8	41.2
IV Firm Control (Discipline)	311.5	34.2	297.3	22.0	307.2	29.2	307.0	12.1
V Non-Directive (Democratic Process)	268.2	33.0	259.6	54.5	237.4	37.3	237.0	12.1
Composite Score	317.7	20.4	311.8	22.9	306.5	20.9	305.0	14.5

*Includes Secondary only.

Table 33

COMPARISON OF MEAN SET-II SCORES FOR FIRST YEAR M.A. GRADUATES 1981-84

	1981 (N=8)		1982 (N=11)		1983 (N=6)		1984 (N=14)	
Factor	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD
Rapport	6.07	1.08	5.60	6.58	5.63	0.36	5.34	0.30
Stimulating Interaction Style	10.54	1.43	10.26	0.79	10.07	0.45	9.96	0.70
Fosterance of Self Esteem	6.64	1.05	6.85	0.54	7.12	0.36	6.87	0.62

Table 34

COMPARISON OF MEAN FLANDERS RATIOS FOR FIRST YEAR M.A. GRADUATES 1981-84

	1981 (N=32)		1982 (N=29)		1983 (N=25)		1984 (N=24)	
Ratio	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD
I/D	1.21	1.68	1.09	0.79	1.08	1.12	0.78	0.93
i/d	0.52	0.48	0.60	0.42	0.50	0.31	0.48	0.33
ST/TT	0.50	0.37	0.65	0.49	0.49	0.28	0.46	0.22
Sil/Tot	0.30	0.33	0.21	0.24	0.34	0.35	0.54	0.36
Lec/Tot	0.48	0.24	0.46	0.20	0.48	0.17	0.53	0.11

Table 35

COMPARISON OF MEAN COR SCORES FOR FIRST YEAR M.A. GRADUATES 1981-84

	1981 (N=33)		1982 (N=29)		1983 (N=25)		1984(N=24)	
Factor	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD
I	42.2	1.4	41.9	1.8	39.7	7.0	46.3	2.6
II	66.1	3.0	66.3	3.4	52.7	14.3	65.6	4.3
III	23.6	1.7	23.1	1.7	21.1	5.8	23.2	3.9

Table 36

COMPARISON OF MEAN TUCKMAN SCORES FOR FIRST YEAR M.A. GRADUATES 1981-84

	1981 (N=32)		1982 (N=29)		1983 (N=25)		1984 (N=24)	
Factor	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{X}$	SD
I Creativity	31.5	5.5	22.8	5.4	24.6	4.6	34.1	5.0
II Dynamism (Dominance of Energy)	33.8	3.7	24.6	4.7	24.4	3.9	30.8	5.1
III Organized Demeanor (Organization and Control)	36.3	1.8	33.0	5.0	31.7	4.6	39.3	2.9
IV Warmth and Acceptance	35.9	2.3	35.6	6.3	33.8	7.2	38.3	2.6

Summary

This chapter contains an overview of the results of the twelfth year of the application of the Tennessee Technological University Teacher Evaluation Model to 1984 graduates of the teacher education programs of the University. The graduates were teaching across the full spectrum of grades K-12. However, based on the results of earlier work, it was found there were few differences between elementary and secondary teachers. Therefore, for purposes of the analyses reported in this chapter the data were combined in some cases.

Correlation analyses of the variables for the total group were similar to those reported in earlier years of the study. Career baseline data for the B.S. and M.A. graduates were similar to those reported in the past four years. The samples of graduates being studied have shifted in composition from largely those with the B.S. to those who have achieved both the B.S. and M.A. An examination of the various measures indicated there were few differences between the first year B.S. and M.A. graduates. In general, the B.S. graduates achieved higher scores and ratings than the M.A. graduates. This is in opposition to previous findings and may be due to the sample sizes involved. Comparisons of first year B.S. graduates with those who graduated over the past three years (1981, 1982 and 1983) indicated there were no differences. Similar results were evidence for the M.A. graduates.

Strengths of the graduates appeared to be in such areas as organization in the classroom, subject matter competency, appropriateness of assignments and experiences for their students, good rapport with their students, being friendly and cheerful and use of praise in the classroom. Weaknesses of the graduates appeared to be in the areas of encouraging independence among their students, encouraging self esteem and being more non-directive. The majority of these weaknesses were cited for teachers in the lower elementary grades. It appears that these may be areas of concern for inservice education in the future.

CHAPTER IV

SUMMARY, CONCLUSIONS, RECOMMENDATIONS, AND FUTURE PLANS

The objectives of Chapter IV were fourfold: (1) to provide a brief summary of the total evaluation study conducted in 1984-85; (2) present a summary of the major conclusions of the study for the year; (3) present recommendations based on the conclusions of the study; and (4) provide a summary of the plans for the continuation of the study during 1985-86.

Summary

Three groups of subjects (graduates of the teacher education programs of Tennessee Technological University) served as subjects for the study. The sample sizes by year of graduation were as follows: 1982--15, 1983--21, and 1984--40 (including 15 B.S. and 25 M.A. graduates). Data were collected on each subject by use of standardized instruments and specially constructed questionnaires administered by trained graduate research assistants. Also, personal data about each graduate were collected from University records. Basic instrumentation and procedures for the study were pilot tested during the first year of the study and have remained essentially unchanged. The instrumentation for the current year included: (1) University permanent records and transcript information, (2) principal's evaluation of each subject, (3) administration of the California F-Scale (to those individuals participating in the study for the first time) to measure individual prejudices and anti-democratic tendencies, (4) administration of the Classroom Observation Record and the Tuckman Teacher Feedback Form, (5) administration of either the Student Evaluation of Teaching or the Student Evaluation of Teacher, and (6) a ten category interaction analysis system to record classroom behavior. All data obtained in the study were classified, coded and key-punched for analyses. Descriptive statistics, intercorrelations, and comparisons were computed. The major findings of the study were divided into three major parts, e.g., an examination of second and third year participants in the study, comparisons of first year subjects across three years and comparisons of B.S. and M.A. level graduates.

The major findings of the study for the first year subjects (1984 graduates) were similar to those reported throughout the previous ten years of the project. Comparisons made between the B.S. and M.A. graduates revealed few differences in scores and ratings of performance. However, the general trend indicated that those individuals with the M.A. were functioning at a higher level. A comparison of first year data across four years indicated there were few differences in the three groups. The sample sizes were relatively small for the data collected on the second and third year participants. Therefore, only limited inferences could be made from the data. It appeared that those individuals who had remained in the study achieved higher ratings than first year participants.

Based on the findings of the study, several conclusions were advanced and recommendations made for continuation of the study. These follow in the next sections of this chapter.

Conclusions

Following are the major conclusions of the study based on the findings of the eleventh year of operation of the project. Additional analyses of the data are planned that may make other conclusions possible. This section is divided into three parts: Use of the Evaluation Model, Evaluation of the 1984 Graduates, and Comparison of Data Across Time.

Use of the Evaluation Model

(1) The plan of evaluation outlined in this report appeared to be useful in gathering information for modifying and improving the programs of teacher education at Tennessee Technological University.

(2) Instrumentation employed in the study appeared to be valid and provided essential information with regard to the graduates of the teacher education programs.

(3) Modifications can be made in the original model that can lead to more valid and useful information for an institution wishing to replicate the plan of evaluation.

(4) Additional ways need to be found to facilitate the use of the reports for curriculum improvement.

Evaluation of 1984 Graduates

(1) The B.S. and M.A. subjects who participated in the study for the first year in 1984-85 exhibited characteristics similar to their counterparts who had participated in earlier phases of the project.

(2) B.S. subjects who participated in the study for the first time during 1984-85 had achieved mean scores on the ACT prior to entering the University that were higher when compared to other students who entered the University in 1981. Also mean ACT scores were higher than for first year participants in the 1981, 1982 and 1983 phases of the study.

(3) Principals' ratings of performance of the graduates tended to agree with the data collected through the use of the Student Evaluation of Teaching or the Student Evaluation of Teacher, the Classroom Observation Record, and the Tuckman Teacher Feedback Form.

(4) Many of the characteristics reported in the literature of good teachers were noted as a result of the administration of the Classroom Observation Record.

(5) The subjects in the study appeared to be using more indirect than direct teaching in their classrooms. Indirect/Direct ratios based on the interaction analysis system used were higher than for other comparable groups of teachers.

(6) In general, the first year B.S. subjects received comparable or higher ratings than M.A. subjects. Even though the differences were not

significant, there was a trend. This was in opposition to findings in earlier years of the study, in which it appeared that those who held the M.A. might be better teachers.

The subjects of this study possessed many of the characteristics of good teachers as reported in the literature. As might be expected, it was difficult to identify specific problems. Principals praised the subjects as did their students. However, it must be kept in mind that the subjects who participated in this study were volunteers. Therefore, some bias was introduced into the total study that may make some of the conclusions and findings invalid when applied to the total population of graduates.

Comparisons of Data Across Time

(1) The 1984 B.S. and M.A. graduates of the teacher education programs of the University were functioning at a level comparable with first year 1981, 1982 and 1983 graduates.

(2) Second and third year participants in the study were functioning at or slightly above the level reported when they were in their first year of the study.

RECOMMENDATION

Based on the findings and conclusions of the study, it was felt the following recommendations were warranted. These recommendations centered largely around the continuation and modification of the study. It was left to the reader to make recommendations relative to his/her individual problems and concerns and toward needed changes in the teacher education program of the institution.

(1) The basic plan outlined in this report should be replicated during 1985-86 adding another group of subjects who complete the B.S. or M.A. requirements in 1985.

(2) Continuing contact should be maintained with other institutions and agencies pursuing similar projects and the literature related to teacher evaluation should be continuously monitored.

(3) There is a need to identify more reliable and valid instruments to collect basic data.

(4) Further analyses of the data should be made employing more sophisticated statistical techniques.

(5) Faculty of the University and other individuals should be encouraged to review the report and to request additional data analyses to fit their individual needs.

(6) Uses of the data in the development and modification of curricula should be encouraged by the administration of the University.

(7) A more extensive data bank of information on all students in the teacher education programs should be established.

(8) Other studies supportive of the evaluation model should be initiated.

Plans for Continuation of the Study During 1985-86

During 1985-86, particular emphasis will be placed on studies of the graduates of the teacher education programs for the period 1983 through 1985. Subjects who graduated prior to 1983 will be dropped from further study as per the design of the project. The potential population of 1983 and 1984 graduates was 60. In addition, a sample of approximately 45 B.S. and M.A. 1985 graduates will be added to the study.

Figure 2, in Chapter I, shows an abbreviated PERT chart for the major activities of the project during 1984-85. Tentatively this same plan will be followed during 1985-86. Initially two graduate assistants will engage in intensive studies of the use of the various classroom observation instruments between mid-September and mid-October. Concurrent with these activities, a schedule of visitation will be developed for the 1983 and 1984 graduates that have previously participated in the study. Of the 64 individuals who have previously participated in the study, it is anticipated that about 40 to 45 percent will drop out for a variety of reasons. The remaining subjects will be visited starting about the 25th of October 1985 and continue into December 1985.

During the early part of October 1985, a survey questionnaire will be sent to all 1985 graduates (fall 1984, winter 1985, spring 1985, and summer 1985) of the teacher education programs of the University. All 1984 B.S. and M.A. education graduates teaching within a 65-75 mile radius of the University will be asked to participate in the study. It is anticipated that a sample of 20 to 25 B.S. graduates and 25 to 30 M.A. graduates will be selected for inclusion in the study. A schedule of visitation will be prepared in the early winter of 1986, and visits for purposes of observation and gathering baseline data will be carried out during the winter and spring of 1986.

Beginning in the late spring and continuing into the summer of 1986, data analyses will be made and a report of the eleventh year activities of the project will be prepared. The report will include detailed comparisons with the results obtained in previous years. During 1985-86, time permitting, a series of special studies will be completed that will lend extra data to the total project.

Long Range Plans

Based on the high level of acceptance by the University and the interest shown by other groups, the project has been integrated into the total operation of the teacher education program. Teacher followup evaluations will continue at Tennessee Technological University on an indefinite basis. At the time of the preparation of this report, a proposal has been submitted to the Tennessee Higher Education Commission to establish a "Center of Excellence in Teacher Education Evaluation." If the project is funded it will allow for an increased effort to develop new and improved ways to evaluate and upgrade teacher education programs not only at Tennessee Technological University but at other colleges and universities.

APPENDIX A

REPORTS AND STUDIES RELATED TO THE TEACHER PREPARATION PROGRAMS OF TENNESSEE TECHNOLOGICAL UNIVERSITY

1. Ayers, Jerry B. Report 1-Restudy. A Survey of the Graduates of the Teacher Preparation Programs of Tennessee Technological University for the Period 1965 through 1969, Cookeville, TN: Tennessee Technological University, College of Education, 1971. (mimeo.), 49 pp.

2. Faculty of the College of Education. Report II-Restudy. Objectives of the Teacher Preparation Program, Volume I, Volume II, and Volume III. Cookeville, TN: Tennessee Technological University, College of Education, 1971. (mimeo.), 910 pp. Out of print.

3. Ayers, Jerry B. Report III-Restudy. A Report of Four Surveys of the Graduates of the Teacher Preparation Programs of Tennessee Technological University for the Period 1965 through 1970. Cookeville, TN: Tennessee Technological University, College of Education, 1971. (mimeo.), 39 pp.

4. Ayers, Jerry B. "Predicting Quality Point Averages in Master's Degree Programs in Education." Educational and Psychological Measurement, 31:491-95, 1971.

5. Ayers, Jerry B. A Survey of Student Teachers at Tennessee Technological University. Cookeville, TN: Tennessee Technological University, College of Education, 1971. (mimeo.), 7 pp.

6. Ayers, Jerry B. Report V-Restudy. A Report of Two Surveys of the 1971 Graduates of the Teacher Preparation Programs of Tennessee Technological University. Cookeville, TN: Tennessee Technological University, College of Education, 1972. (mimeo.), 28 pp.

7. Ayers, Jerry B. and Michael E. Rohr. "Prediction of Quality Point Averages from Personality Variables," Educational and Psychological Measurement, 32:491-94, 1972.

8. Dotson, James R. and Jerry B. Ayers. "A Systematic Plan for the Restudy of a Teacher Education Program," The Tennessee Tech Journal, 7:85-89, 1972.

9. Ayers, Jerry B. and Michael E. Rohr. "The Relationship of Student Grade Expectations, Selected Characteristics, and Academic Performance for Education, Engineering, and Business Majors," Presented before the American Educational Research Association, April 1972, Chicago, IL.

10. Brimm, Jack L. and Jerry B. Ayers. "Attitudes of Students Toward Education and Liberal Arts Courses," Presented before the Mid-South Educational Research Association Meeting, November 1973, Memphis, TN.

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15. Riddle, Barbara Ann. Report 74-2. An Evaluation of the Graduate Program in Health and Physical Education at Tennessee Technological University By a Followup Study of the Graduates. Cookeville, TN: Tennessee Technological University, College of Education, 1974. (mimeo.), 119 pp.

16. Ayers, Jerry B. and Robert E. DuBey. "Student Teachers Attitudes Toward Supervising Teachers," The Educational Catalyst, 4:17-22, 1974.

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18. Ayers, Jerry B. Report 74-3. Study of the Graduates of the Library Science Program of Tennessee Technological University 1969-73. Cookeville, TN: Tennessee Technological University, College of Education, 1974. (mimeo.), 28 pp.

19. Bilbrey, Leroy. Human Relations Skills and Teacher Effectiveness. Unpublished M.A. Thesis, College of Education, Tennessee Technological University, 1974.

20. Ayers, Jerry B. Report 74-4. Tennessee Technological University Teacher Evaluation Model. Cookeville, TN: Tennessee Technological University, College of Education, 1974. (mimeo.), 92 pp., ERIC No. 095 169.

21. Duncan, Barbara Louise. Report 74-5. Study of the Graduates of the Counselor Education Program of Tennessee Technological University. Cookeville, TN: Tennessee Technological University, College of Education, 1974. (mimeo.), 33 pp.

22. Ayers, Jerry B. Report 74-6. Study of the Use of the Graduate Record Examination. Cookeville, TN: Tennessee Technological University, College of Education, 1974. (mimeo.), 10 pp.

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24. Ayers, Jerry B. Report 75-1. A Report of Three Surveys of the 1974 Graduates of the Teacher Preparation Programs of Tennessee Technological University. Cookeville, TN: Tennessee Technological University, College of Education, 1975. (mimeo.), 18 pp.

25. Perry Don M. Report 75-2. Investigation of the Relationships Between Authoritarianism of Principals and Their Ratings of Teachers. Unpublished Ed.S. Problem Paper. Cookeville, TN: Tennessee Technological University, College of Education, 1975. 18 pp.

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27. Ayers, Jerry B. Report 75-4. Tennessee Technological University Teacher Evaluation Model--Year II. Cookeville, TN: Tennessee Technological University, College of Education, 1975. (mimeo.), 61 pp., ERIC No. 123 210.

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36. Ayers, Jerry B. Report 77-1. A Report of Three Surveys of the 1976 Graduates of the Teacher Preparation Programs of Tennessee Technological University, Cookeville, TN: Tennessee Technological University, College of Education, 1977. (mimeo.), 20 pp.

37. Ayers, Jerry B. Report 77-2. Tennessee Technological University Teacher Evaluation Model--Year IV, Cookeville, TN: Tennessee Technological University, College of Education, 1977, 100 pp. ERIC Document No. 148 778.

38. Ayers, Jerry B. Report 78-1. A Report of Three Surveys of the 1977 Graduates of the Teacher Preparation Programs of Tennessee Technological University, Cookeville, TN: Tennessee Technological University, College of Education, 1978. (mimeo.), 20 pp.

39. Ayers, Jerry B. Report 78-2. Tennessee Technological University Teacher Evaluation Model--Year V, Cookeville, TN: Tennessee Technological University, College of Education, 1978, 54 pp. ERIC Document No. 167 487.

40. Ayers, Jerry B. Report 79-1. A Report of Three Surveys of the 1978 Graduates of the Teacher Preparation Programs of Tennessee Technological University, Cookeville, TN: Tennessee Technological University, College of Education, 1979. (mimeo.), 21 pp.

41. Ayers, Jerry B. "Followup Studies at Tennessee Technological University: A Model for Teacher Evaluation," Presented before the Annual Meeting of the National Association for Research in Science Teaching, Atlanta, March 1979. ERIC Document No. 170 142.

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APPENDIX B

INSTRUMENTATION USED IN STUDY

INSTRUMENTATION

Introduction

Instruments and records used for data collection have consisted of five general types: general information questionnaires, a personality scale, rating scales, direct classroom observation devices, and data from each subject's University permanent records. These instruments and sources of data were selected to parallel the recommendations of Sandefur (1) and Adams (2) and on the basis of their merit as research tools, contributions of the data that could be collected to the objectives of the study, their methods of administration, and minimal training required for administration of the instruments. The remainder of this chapter consists of a brief description of each instrument or major category of data collection and copies of each instrument.

General Information Questionnaires

A questionnaire designed to obtain career base line data and graduate's ratings of the teacher education program (originally developed in 1970 and modified through several successive versions) was administered to all subjects during their first year in the study. Two forms of the instrument are available. The first form (Instrument 1) was designed to be used with individuals who have completed the B.A. or B.S. The instrument contains items that provide information concerning demographic data, professional data, employment history, and ratings of ten broad areas related to the teacher preparation program. Items 1-9 of Section B of the instrument were designed to assess individual's self-ratings of achievement of the major objectives of the teacher education program of the University.

The second form of the general information questionnaire (Instrument 2) was designed to be used with individuals who had completed the M.A. This instrument was designed to gather similar information as described for the bachelor's level instrument.

Both instruments were designed to be used as a part of a mail survey of all graduates of the teacher education program in the year following completion of degree requirements. These instruments provided essential basic information needed for completion of other phases of the teacher evaluation model.

Permanent Records and Transcript Information

Complete transcripts of each subject's grades, etc. were obtained from the Office of Admissions and Records. Also the records of the College of Education were reviewed to locate scores from the National

INSTRUMENT 1

A FOLLOW-UP STUDY OF B.S. AND B.A. GRADUATES OF TENNESSEE TECHNOLOGICAL UNIVERSITY

Please do not write in this space

Dear Tennessee Tech Graduate:

We are engaged in a study of graduates of the teacher education program here at Tennessee Tech. Our purpose in this study are to determine your appraisals of your college preparations, your teaching experience, and your impressions of your positions. Your thoughtful response to the questions and statements below will be of great help and will be much appreciated. Most statements require only a check and it should take you no more than fifteen minutes to complete this questionnaire. All information will be treated as confidential and only general conclusions representing group data will be reported.

Please accept our thanks for taking a few minutes to fill in the indicated blanks and for returning the questionnaire in the enclosed addressed envelope.

Sincerely yours,

Jerry B. Ayers

Jerry B. Ayers
Associate Dean

A. GENERAL INFORMATION
CIRCLE the Correct Response Where Appropriate

Control No. ____ Sex 1 Male 2 Female 1 4

1 Name ____ Last ____ First ____ Middle ____ Maiden ____ 5

2 Present Address ____ Phone No. ____

3 Permanent Mailing Address ____

4 Circle your present occupation 1 Teaching 2 Homemaking 3 Military Service 4 Continuing Formal Study 6
5 Unemployed 6 Working in Industry 7 Social Work 8 Other Government Work 9 Other (Specify) ____

If you are teaching, complete the following information

School System ____

Name of School ____ Principal ____

Address of School ____ Street ____

City ____ State ____ Zip ____ 7

5 How many years have you taught including the present? 8

6 Initial Area of Teacher Certification 1 Elementary 2 Secondary 3 Home EC 4 Music 5 Early Childhood 6 Special Education

7 Circle the grades you will be generally teaching this fall 9
1 Preschool 2 1-3 3 4-6 4 7-9 5 10-12 6 Above 12

8 List all areas in which you hold certification ____ 10

9 Have you started work toward a Master's Degree? 1 Yes 2 No

If yes, how many hours have you completed? ____

Institution ____

10 Please circle your salary for the present year 1 less than $15,000 2 $15,001 to $16,000 3 $16,001 to $17,000 4 $17,001 to $18,000 5 $18,001 to $19,000 6 $19,001 to $20,000 7 $20,001 to $21,000 8 $21,001 to $22,000 9 More than $22,000 11

11 Circle your age range 1 20-24 2 25-29 3 30-34 4 35-39 5 40-49 6 50 and over 12

12 Circle your Marital Status 1 Single 2 Married 3 Divorced 4 Widowed 13

13 If you are employed as a teacher, circle the degree of difficulty you have in securing a position 14
1 None 2 Some 3 A great deal

14 If you are not now teaching, are your still seeking a teaching position? 1 Yes 2 No 15

(OVER)

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B. TEACHER PREPARATION PROGRAM

In order to evaluate your teacher preparation program, we would appreciate your indicating in column A Your Perceived Level of Skill or Understanding of Each of the Following and in column B Your Overall Rating of the Teacher Education Program's Contribution to Your Achieving the Skill or Understanding. Please use the following scale for rating each item: 1 Very Unsatisfactory or Very Unimportant; 2 Somewhat Unsatisfactory or Unimportant; 3 Neutral; 4 Somewhat Satisfactory or Important; 5 Very Satisfactory or Very Important; 0 Cannot express an opinion

	A	B	
1 Your teaching personality			39
a Ability to work with children			40-41
b Ability to work with colleagues			42-43
c Ability to work with parents			
2 Your general knowledge and understanding of			44-45
a Sciences and Mathematics			46-47
b Humanities			48-49
c Social Sciences			50-51
3 Your ability to use the English language effectively			
4 Your knowledge and understanding of the subjects which you teach			52-53
5 Your understanding of children and youth			54-55
a Insight into causes of behavior			
b Skill in working with exceptional children (the bright, the dull, the handicapped)			56-57
c Skill in maintaining discipline			58-59
6 Your understanding of the nature of the learning process			60-61
7 Your knowledge of sources of teaching materials			62-63
8 Your ability to use teaching materials effectively			64-65
9 Your knowledge and understanding of			
a The purposes of school in relation to the over-all purpose of society			66-67
b The social structure of the community and its meaning for education			68-69

10 Please rate the following courses in terms of your perceived value of the course to teaching. Use the same rating scale as above

a INTRODUCTION TO TEACHING	70
b GENERAL PSYCHOLOGY	71
c HUMAN GROWTH AND DEVELOPMENT	72
d EDUCATIONAL PSYCHOLOGY	73
e SOCIAL FOUNDATIONS OF EDUCATION	74
f HISTORY AND PHILOSOPHY OF EDUCATION	75
g EVALUATION AND GUIDANCE	76
h METHODS COURSES	77
i MICRO TEACHING	78
j STUDENT TEACHING	79

11 Overall how would you rate the quality of instruction in the college of education — 1 very unsatisfactory — 2 somewhat unsatisfactory — 3 Neither unsatisfactory nor satisfactory — 4 somewhat satisfactory — 5 very satisfactory — 80

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INSTRUMENT 2

TENNESSEE TECH UNIVERSITY

A FOLLOW-UP STUDY OF MASTER OF ARTS GRADUATES OF TENNESSEE TECHNOLOGICAL UNIVERSITY

Please do not write in this space

Dear Tennessee Tech Graduate:

We are engaged in a study of graduates of the teacher education program here at Tennessee Tech. Our purposes in this study are to determine your appraisals of your college preparation, your teaching experiences, and your impressions of your problems. Your thoughtful response to the questions and statements below will be of great help and will be much appreciated. Most statements require only a check and it should take you no more than fifteen minutes to complete this questionnaire. All information will be treated as confidential and only general conclusions representing group data will be reported.

Please accept our thanks for taking a few minutes to fill in the indicated blanks and for returning the questionnaire in the enclosed addressed envelope.

Sincerely yours,

JERRY B. AYERS
Associate Dean

CIRCLE the Correct Response Where Appropriate

Control No. 1-4

1. Name _____ Sex: 1. Male 2. Female 5
Last First Middle Maiden

2. Present Address _____ Phone No. _____

3. Permanent Mailing Address _____

4. Age range (circle): 1. 20-24 2. 25-29 3. 30-34 4. 35-39 5. 40-49 6. 50 and over 6

5. Marital Status: 1. Single 2. Married 3. Divorced 4. Widowed 7

6. Dates you were working toward the Master's degree at Tech: From _____ year to _____ year 8-11

7. Age when you first registered for graduate work at Tennessee Tech _____ 12-13

8. Where did you complete your Bachelor's degree? _____ 14-15

9. In what year did you receive your Bachelor's degree? _____ 16

10. Circle your graduate major at Tennessee Tech: 1. Administration and Supervision 2. Guidance and Counseling 3. Elementary 4. Reading 5. Secondary 6. Health and Physical Education 7. Early Childhood 8. Special Education

11. How many years have you taught including the present? _____ 17

12. Primary Area of Teacher Certification: 1. Elementary 2. Secondary 3. H or PE 4. Music 5. Early Childhood 6. Special Education 18

13. Circle the grade level you will be generally teaching this fall: 1. Preschool 2. 1-3 3. 4-6 4. 7-9 5. 10-12 6. Above 12 7. Other 19

14. List all areas in which you hold certification _____

15. Please circle the position that you held during the current school year: 1. Teacher 2. Student 3. Military 4. Homemaker 20
5. Principal 6. Supervisor 7. Librarian 8. University Administrator 9. Counselor 10. Other

School System or Employer _____

Address of School _____

_____ City _____ State _____ Zip Code

16. Please circle your salary for the current school year: 1. less than $15,000 2. $15,001 to $16,000 3. $16,001 to $17,000 4. $17,001 to $18,000 5. $18,001 to $19,000 6. $19,001 to $20,000 7. More than $20,000 21

17. Did you complete any graduate work at other institutions prior to enrolling at Tech? 1. Yes 2. No

If yes, at what institution? _____ 22

18. Did you receive financial assistance during your period of graduate work at Tech?

1. None 2. Assistantship 3. Loan 4. Other 23

19. How many hours have you completed toward the Specialist degree? _____

Institution _____

20. How many hours have you completed toward the Doctorate? _____

Institution _____

(OVER)

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FOLLOWING ARE QUESTIONS THAT ARE RELATED DIRECTLY TO YOUR PROGRAM OF STUDY AT TECH.

Please rate each of the following points

	Very unsatisfactory 1	Somewhat unsatisfactory 2	Neither satisfactory nor unsatisfactory 3	Somewhat satisfactory 4	Very satisfactory 5	No Opinion 9	
a. Interest of professors in students							24
b. Announcements of deadline							25
c. Accessibility of professors							26
d. Amount of guidance given in planning and carrying out program							27
e. Adequacy of library							28
f. Adequacy of Learning Resources Center in College of Education							29
g. Instruction in major field							30
h. Instruction in minor							31
i. Scheduling of courses							32

Please rate the following courses in terms of your perceived value of each course to your present position

	Very unsatisfactory 1	Somewhat unsatisfactory 2	Neither satisfactory nor unsatisfactory 3	Somewhat satisfactory 4	Very satisfactory 5	No Opinion 9	
a. Educational Research							33
b. Educational Statistics							34
c. Field Experience or Practicum							35
d. Research Report or Problem							36
e. Public School Administration							37
f. Supervision of Instruction							38
g. Curriculum Development							39
h. School Community Relations							40
i. Introduction to Guidance							41
j. Counseling Techniques							42
k. Measurement and Evaluation							43
l. Courses in the Teaching of Reading							44

Did you take any courses in the resident centers maintained by Tech while working toward your M.A.? 1 Yes 2 No If you answered yes how would you rate the quality of instruction in comparison to the quality of instruction that you received on campus? 45

1 Poor 2 Fair 3 About the same 4 Good 5 Excellent 46

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Teacher Examinations (completed by the subjects during their senior year) and other information. Instrument 3 shows a sample list of the type information collected and used as a part of the major study. The numbers contained on the sheet were used in the computer coding process (see Chapter III). At times data from other instrumentation was collected and used in sub-projects related to the main application of the Model.

Principals and Supervisors Questionnaires

Principals of the subjects were asked to complete two questionnaires. The Principals' Questionnaire (Instrument 4) was originally developed by the Office of the Associate Dean in 1970 and parallels the followup questionnaires for B.S. graduates relative to various areas of the teacher education program. Each principal was asked to rate each subject on 59 categories on a scale of 1 to 5 (very unsatisfactory to very satisfactory).

Each subject's principal was also asked to complete the Teacher Evaluation by Supervisor Form (Instrument 5). This instrument was a modification of a form originally developed at Kansas State Teacher's College (3). This form allowed the principal or other supervisor to rate each subject on a scale from 1 to 5 on four areas of teacher behavior including: 1) subject matter competence, 2) relations with students, 3) appropriateness of assignments and academic expectations, and 4) overall classroom effectiveness.

Personality Measure

Instrument 6, the California F-Scale Forms 45 and 40, was developed by Adorno, et al. (4), to measure individual prejudices and anti-democratic tendencies. The 28 item instrument was related to opinions regarding a number of social groups and issues about which some people agree and others disagree. The subjects were asked to respond to each item on a six point scale ranging from strong opposition (disagree) to strong support (agree). Reliability of the F-Scale was determined by Adorno (5) as .90. The instrument was administered to all subjects during their first year of participation in the study.

Scoring of the instrument was accomplished by adding algebraically +4 to the response to each item on the questionnaire. Thus, individual scores ranged from 1 to 7. The scores for each of the 28 items were summed. Scores could range from 28 to 192 with 112 being the mid-point.

Teacher_____ Date_____

Advisory Part Scores - NTE		
S. S.	_____	7
L. & F. A.	_____	8
Science	_____	9
Math	_____	10
Teaching Area Exam	_____	11-13
Prof. Educ. Test	_____	14-16

Common Exam - NTE		
Written Eng.	_____	17-18
S. S., Lit. F. A.	_____	19-20
Sci. & Math	_____	21-22
Wt. Subtotal	_____	23-25
Wt. Common	_____	26-28
Composite	_____	29-32

American College Testing		
English	_____	67-68
Mathematics	_____	69-70
Social Science	_____	71-72
Natural Science	_____	73-74
Composite -	_____	75-76

MAT Score		
Raw Score	_____	77-78

Transcript	Hours		QPA	
Social Science	_____	33-34	_____	35-37
Science	_____	38-39	_____	40-42
Mathematics	_____	43-44	_____	45-47
English	_____	48-49	_____	50-52
Education & Psy.	_____	53-54	_____	55-57
Major Field	_____	58-60	_____	61-63
Overal QPA	_____	64-66		

INSTRUMENT 4

A FOLLOW-UP STUDY OF TEACHER EDUCATION GRADUATES OF TENNESSEE TECHNOLOGICAL UNIVERSITY

Please do not write in this space.

Dear Principal:

We are engaged in a study of graduates of the teacher education program here at Tennessee Tech. Our purposes in the study are to determine the effectiveness of our graduates and to gather information on how our teacher education program can be improved. The teacher in your school listed below is a graduate of our teacher education program. We would appreciate your taking a few minutes to complete this questionnaire about this person and returning it to us in the enclosed addressed envelope. All information will be treated as confidential and only general conclusions representing group data will be reported. Please accept our thanks for completing this questionnaire.

Sincerely yours,

JERRY B. AYERS Ed.D.
Administrative Assistant for Special Services, College of Education

Name of Tennessee Technological University Graduate: _____

Control Number: _____ 1-4

Please rate our graduate in relation to other teachers on your staff on the following points. Please check the appropriate space for each item.

	Not observed 0	Very unsatisfactory 1	Somewhat unsatisfactory 2	Below satisfactory but satisfactory 3	Somewhat satisfactory 4	Very satisfactory 5	
1. Understanding the goals of the school							5
2. Personal appearance							6
3. Enthusiasm for the teaching profession							7
4. Adaptability in the classroom							8
5. Cooperation and dependability							9
6. Attitudes toward children							10
7. Attitudes toward fellow teachers							11
8. Attitudes toward supervisors							12
9. Accuracy in maintaining official records and reports							13
10. Understanding and using courses of study and curriculum guides							14
11. Making effective use of community resources							15
12. Handling disciplinary problems							16
13. Getting acquainted with the community and its people							17
14. Keeping abreast of recent professional developments							18
15. Evaluating pupil progress							19
16. Motivating pupils who seem disinterested							20
17. Relationships with parents							21
18. Participation in professional activities							22
19. Potential for advancement in the profession							23
20. Relationships with fellow teachers							24
21. Overall effectiveness of this person in comparison with other teachers in your school							25
22. Overall qualifications of this person to teach in your particular school situation							26

In order to evaluate our teacher preparation program, we would appreciate your indicating the degree to which you feel this person is equipped with the necessary skills and understandings in the following areas. Please check the appropriate space for each item.

(over)

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	0	1	2	3	4	5	
1. Teaching personality							
a. Ability to work with children							27
b. Ability to work with colleagues							28
c. Ability to work with members of the community							29
d. Ability to maintain a friendly disposition							30
e. Ability to lead a well-rounded life, to enjoy work and play							31
f. Ability to work with parents							32
2. General knowledge and understanding of							33
a. The physical sciences							34
b. The biological sciences							35
c. American culture and institutions							36
d. Art, music, literature, philosophy							37
e. Mathematics							38
3. Ability to use the English language effectively							39
4. Knowledge and understanding of the subject taught							
5. Understanding of children and youth:							40
a. Insight into causes of behavior							40
b. Skill in working with exceptional children (the bright, the dull, the handicapped)							41
c. Skill in group work							42
d. Skill in maintaining discipline							43
e. Skill in guidance of children							44
6. Understanding of the nature of the learning process							
a. Skill in helping students determine objectives							45
b. Skill in motivating students							46
c. Skill in pupil-teacher planning							47
d. Skill in using a variety of teaching methods							48
e. Skill in evaluating pupil growth and class procedures with pupils							49
f. Ability to construct appropriate tests and learning materials							50
g. Skill in the application of learning theory in the classroom							51
h. Skill in providing differentiated learning experiences for various groups and individuals							52
7. Knowledge of sources of teaching materials							
a. Printed materials							53
b. Audio-visual materials							54
c. Community resources							55
d. Library and library materials							56
8. Ability to use teaching materials effectively							57
9. Knowledge and understanding of							
a. The purposes of the school in relation to the overall purpose of society							58
b. The social structure of the community and its meaning for education							59
c. The institutions of the community							60
d. The different value-patterns of social-economic classes							61
e. The economic life of the community							62
f. Appropriate ethical behavior of the teacher							63

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PRINCIPAL'S TEACHER EVALUATION FORM

Teacher:_____ Date:_____

Teaching is the most important task of the school. In order to help the school to be informed regarding the quality of its teaching, you are requested to indicated your opinion of the above named instructor's performance in the four important dimensions of teaching described on the following pages. The highest rating is number 5; the lowest is number 1. Please encircle the number that represents your opinion of the individual. Three of the five ratings for each dimension are described by words and phrases printed to the left of the numbers. The intermediate numbers may also be used for the expression of your opinions.

DIMENSIONS OF TEACHING	DESCRIPTIVE WORDS AND PHRASES	RATING
Subject Matter Competence	Thorough, broad, and accurate knowledge of theory and practice; very able to organize, interpret, explain and illustrate concepts and relationships.	5
		4
	Adequate understanding; most interpretations and explanations are clear.	3
		2
	Knowledge of subject is limited; does not give clear explanations and illustrations.	1
Relations with Students	Excellent rapport; feeling of good will prevails; very interested in students; easily approached; students are challenged yet individuality is respected.	5
		4
	Adequate rapport; shows some interest in students; usually approachable; students are encouraged to participate; shows some sense of humor	3
		2
	Seems unfriendly and unresponsive; impatient; sometimes antagonizes students; too busy to be helpful.	1

Appropriateness of Assignments and Academic Expectations	Assignments are challenging; he allows for differences of ability but expects superior achievement; stresses important topics and concepts and avoids giving time to trivial details; demands critical and analytical thought; tests seem valid.	5
		4
	Most assignments are clear, reasonable and related to class work; expects understanding not memorization; recognizes individual differences among students but generally seems to ignore them; tests are usually related to assignments and class work.	3
		2
	Assignments are unrealistic, often not clear, not related to class work; students do not know what the teacher expects; tests seem unrelated to assignments and class work.	1

Overall Classroom Effectiveness	Lessons are carefully planned and show definite purpose; words come easily; well-organized ideas and concepts are clearly related; enthusiastic and stimulating; raises thought provoking questions; discussions are lively; pleasing manner free from annoying mannerisms.	5
		4
	Usually well-prepared, purposes are usually clear; presentations are fairly well-organized; encourages student participation; objectionable mannerisms are not serious or numerous; asks some good questions.	3
		2
	Lessons not planned, purposes are lacking or vague; relationships of concepts are not explained; asks few questions; subject seems uninteresting to him; repeatedly exhibits annoying mannerisms.	1

If you wish to comment further on this instructor's teaching, you may use the back of this page.

INSTRUMENT 6

F-SCALE: FORMS 45 AND 40

The following statements refer to opinions regarding a number of social groups and issues, about which some people agree and others disagree. Please mark each statement in the left-hand margin according to your agreement or disagreement as follows:

+1: slight support, agreement
+2: moderate support, agreement
+3: strong support, agreement

-1: slight opposition, disagreement
-2: moderate opposition, disagreement
-3: strong opposition, disagreement

____ 1. Obedience and respect for authority are the most important virtues children should learn.

____ 2. A person who has bad manners, habits, and breeding can hardly expect to get along with decent people.

____ 3. If people would talk less and work more, everybody would be better off.

____ 4. The businessman and manufacturer are much more important to society than the artist and the professor.

____ 5. Science has its place, but there are many important things that can never be understood by the human mind.

____ 6. Every person should have complete faith in some supernatural power whose decisions he obeys without question.

____ 7. Young people sometimes get rebellious ideas, but as they grow up they ought to get over them and settle down.

____ 8. What this country needs most, more than laws and political programs, is a few courageous, tireless, devoted leaders in whom the people can put their faith.

____ 9. Nobody ever learned anything really important except through suffering.

____ 10. No sane, normal, decent person could ever think of hurting a close friend or relative.

____ 11. What the youth needs most is strict discipline, rugged determination, and the will to work and fight for family and country.

____ 12. An insult to our honor should always be punished.

____ 13. Sex crimes, such as rape and attacks on children, deserve more than mere imprisonment; such criminals ought to be publicly whipped, or worse.

____ 14. There is hardly anything lower than a person who does not feel a great love, gratitude, and respect for his parents.

____ 15. Most of our social problems would be solved if we could somehow get rid of the immoral, crooked, and feeble-minded people.

____ 16. Homosexuals are hardly better than criminals and ought to be severely punished.

____ 17. When a person has a problem or worry, it is best for him not to think about it, but to keep busy with more cheerful things.

____ 18. Nowadays more and more people are prying into matters that should remain personal and private.

____ 19. Some people are born with an urge to jump from high places.

____ 20. People can be divided into two distinct classes: the weak and the strong.

____ 21. Some day it will probably be shown that astrology can explain a lot of things.

____ 22. Wars and social trouble may someday be ended by an earthquake or a flood that will destroy the whole world.

____ 23. No weakness or difficulty can hold us back if we have enough willpower.

____ 24. Most people don't realize how much our lives are controlled by plots hatched in secret places.

____ 25. Human nature being what it is, there will always be war and conflict.

____ 26. Familiarity breeds contempt.

____ 27. Nowadays when so many different kinds of people move around and mix together so much, a person has to protect himself especially carefully against catching an infection or disease from them.

____ 28. The wild sex life of the old Greeks and Romans was tame compared to some of the goings-on in this country, even in places where people might least expect it.

Student Evaluation of Teaching

Two forms of the Student Evaluation of Teaching (SET) were used in collecting data about the teachers in the study. the SET was designed to be administered to children in classroom size groups and yields significant data about children's feelings toward their teacher.

Student Evaluation of Teaching (SET-I). The SET-I was developed by Veldman and Peck (6) and was utilized to obtain ratings from pupils concerning five dimensions of teacher behavior. Veldman (7) described these dimensions as : "1) friendly and cheerful, 2) knowledgeable and poised, 3) lively and interested, 4) firm control, and 5) non-directive (democratic procedure)." Data from the SET-I were obtained from pupils of subjects teaching in grades four and above. Instrument 7 shows a copy of the device.

The SET-I was scored in the following manner:

1. The responses were assigned values of 1-4 where one was Very Much False and 4 Very Much True.

2. Means of each of the ten items were computed and item means were multiplied by a factor of 100.

3. The refined scores were then paired according to the dimensions they were measuring.

Item 1 with Item 6	Friendly and Cheerful
Item 2 with Item 7	Knowledgeable and Poised
Item 3 with Item 8	Lively and Interested
Item 4 with Item 9	Firm Control
Item 5 with Item 10	Non-Directive

4. In addition to scores from the five dimensions, a composite score was obtained by finding their mean.

Student Evaluation of Teacher (SET-II). The SET-II was developed by Haak, Kleiber and Peck (8) and was utilized to obtain ratings from pupils concerning three dimensions of teacher behavior. These dimensions were: 1) Stimulating Interaction Style, 2) Unreasonable Negativity, and 3) Fosterance of Self-Esteem. Data from the SET-II were obtained from pupils of subjects in grades kindergarten through three. Instrument 8 shows a copy of the teacher tally sheet for use with the instrument.

The instrument consists of 22 items which are printed on cards with an identifying "stamp" on the upper right hand corner of each. The teacher tally sheet (Instrument 8) shows all 22 items and their relationship to the various dimensions of the test.

When the test is administered, the examiner orally identifies each card by its "stamp" to the children. The wording of the items is printed upon the cards merely for its face validity value. The examiner

INSTRUMENT 7

STUDENT EVALUATION OF TEACHING

D. J. Veldman & R. F. Peck

Teacher's Last Name: _____

Subject: _____

School: _____

Circle The Right Choices Below

teacher's sex: M F

my sex: M F

my grade level:

3 4 5 6 7 8 9 10 11 12

DO NOT USE

1	2	3	4	5	total

Circle one of the four choices in front of each statement:
The four choices mean:

F = Very Much False
f = More False Than True
t = More True Than False
T = Very Much True

This Teacher:

F f t T is always friendly toward students.

F f t T knows a lot about the subject.

F f t T is never dull or boring.

F f t T expects a lot from students.

F f t T asks for students' opinions before making decisions.

F f t T is usually cheerful and optimistic.

F f t T is not confused by unexpected questions.

F f t T makes learning more like fun than work.

F f t T doesn't let students get away with anything.

F f t T often gives students a choice in assignments.

INSTRUMENT 8

TEACHER TALLY SHEET

Instructions: All the individual student's scoring records for one teacher should be posted on this sheet.

Teacher _____ Grade _____ Date _____

SUMMARY OF SCORES:

Part I.	(Subtotal)	_____	**N= _____
	(Subtotal)	_____	
	(Total)	_____	
Part II.	(Total)	_____	
Part III.	(Total)	_____	

I. Stimulating, Interaction Style:

Item		True (T=1) Tally	True (T=1) Score	False (F=2) Tally	False (F=2) Score
5	She makes school fun.				
4	The kids like her.				
15	She likes us kids.				
13	She thinks we are a small class.				
18	She thinks kids are good.				

* Subscore: Total Rapport

(T) = (F) =

*Subtotal: _____

÷ N= _____

(Scale Mean Score)

7	She helps us a lot.				
9	She listens to what we want.				
3	We can tell how she wants things done.				
17	She likes to teach.				

*Subscore: Total Interactional Competence

(T) = (F) =

*Subtotal: _____

÷ N= _____

(Scale Mean Score)

Scale Total _____

÷ N = _____

(Scale Mean Score)

(OVER)

New Items (Tally Only)

2 She makes what we learn interesting.
23 She is nice when we make mistakes.

T	F

True (T=1) False (F=2)

II. Unreasonable Negativity

Item	
8	She gets mad a lot.
22	She thinks I am lazy.
20	She thinks I act ugly.
10	She gives us too much work.
6	She always picks on people.

Tally	Score	Tally	Score
	(T) =		(F)=

Scale Total_____
÷ N = _____
(Scale Mean Score)

III. Fosterance of Self-Esteem

Item	
15	She likes me.
12	She thinks I am smart.
14	She thinks I can do a lot on my own.
19	She likes for me to help her.
21	She thinks I have good ideas.
11	She thinks I work hard.

	(T) =		(F)=

Scale Total_____
÷ N = _____
(Scale Mean Score)

**N=Number of students who rated this teacher.
*For clinical or counseling use only at Grades 1-3. At Grades 4 and above, use as separate scale scores. (Rapport becomes the name of Scale 4, Interactional Competence the name of Scale 1.)

then reads the item aloud, and the child classifies the item on each card as being either true or false by placing the card in one side of a two-sided sorting envelope. On one side of the sorting envelope appears the picture of a post office box, and on the other side a picture of a wastebasket. If the child believes the statement to be true, he places the card in the mailbox; and if he believes the statement to be false, he places the card in the wastebasket.

Observation Systems

Three types of observation systems were employed in the longitudinal model. These systems were selected because of their ease of use, reliability, and because they did not require extensive training of observers. The reader is referred to Chapter I of this document for a full explanation of the training of observers.

Interaction Analysis

A ten category interaction analysis system was utilized to record observed classroom behavior. This system was basically described by Amidon and Flanders (9) and consisted of seven categories of teacher talk, two categories of student talk and one non-verbal category. The observers recorded a numerical value corresponding to a particular category every three seconds or every time the categories changed. Thus, an objective record was obtained of the variable interaction within the classroom. Three to six twenty-minute observations per subject were recorded during each half-day visit.

Instrument 9 shows a summary of the ten categories employed in the study. This table was taken directly from Amidon and Flanders (10). It will be noted that under the categories of teacher talk there are two major categories--indirect influence containing four sub-categories and direct influence containing three sub-categories. Frequencies for each category were tallied and a 10 x 10 matrix was determined for statistical treatment. Five measures of classroom behavior were obtained from the data collected by interaction analysis. Appropriate categories were combined and ratios computed to determine the following measures:

1. I/D — Indirect to Direct Ratio = Sum of Categories 1, 2, 3, 4 divided by Sum of Categories 5, 6, 7

2. i/d — Revised Indirect to Direct Ratio = Sum of Categories 1, 2, 3 divided by Sum of Categories 6, 7

3. ST/TT — Student Talk to Teacher Talk = Sum of Categories 8, 9 divided by Sum of Categories 1, 2, 3, 4, 5, 6, 7

INSTRUMENT 9

Summary of Categories for Interaction Analysis[a]

TEACHER TALK	INDIRECT INFLUENCE	1.[b] ACCEPTS FEELING: Accepts and clarifies the feeling tone of the students in a non-threatening manner. 2.[b] PRAISES OR ENCOURAGES: Praises or encourages student action or behavior. 3.[b] ACCEPTS OR USED IDEAS OF STUDENTS: Clarifying, building, or developing ideas suggested by a student. 4.[b] ASKS QUESTIONS: Asking a question about content or procedure with the intent that a student answer a question.
	DIRECT INFLUENCE	5.[b] LECTURING: Giving facts or opinions about content or procedures. 6.[b] GIVING DIRECTIONS: Directions, commands, or orders with which a student is expected to comply. 7.[b] CRITICIZING OR JUSTIFYING AUTHORITY: Statements intended to change student behavior from non-acceptable to acceptable patterns.
STUDENT TALK		8.[b] STUDENT TALK-RESPONSE: Talk by students in response to teacher. 9.[b] STUDENT TALK-INITIATION: Talk by students, which they initiate.
		10.[b] SILENCE OR CONFUSION: Pauses, short periods of silence and periods of confusion.

[a]Amidon, Edmund J. and Ned A. Flanders. The Role of the Teacher in the Classroom. A Manual for Understanding and Improving Teacher Classroom Behavior. Minneapolis: Association for Productive Teaching, 1971, p. 14.

[b]No scale is implied by the number 1 through 10. Each number is classificatory and is designed to denote a particular kind of communication event.

4. Sil/Tot — Silence to Total Teaching = Category 10 divided by Sum of Categories 1, 2, 3, 4, 5, 6, 7

5. Lec/Tot — Lecture to Total Teaching = Category 5 divided by Sum of Categories 1, 2, 3, 4, 5, 6, 7

Classroom Observation Record

The Classroom Observation Record developed by Ryans (11) was used to assess four dimensions of pupil behavior and 18 dimensions of teacher behavior. A seven point scale was used to rate each of the pupil and teacher behavior dimensions with an N category for dimensions not observed (the observers circled the appropriate rating for each dimension immediately after each day's observation period). Instrument 10 shows a copy of the rating sheet used as a part of the study. Figures 1 and 2, immediately following the instruments, show a listing of generalized descriptions of critical behaviors of teachers and a glossary of terms applicable to use with the Classroom Observation Record.

INSTRUMENT 10

Classroom Observation Record

Teacher Characteristics Study

Teacher_____ No.____ Sex____ Class or Subject_____ Date_____

City_____ School_____ Time_____ Observer_____

PUPIL BEHAVIOR										REMARKS:
1.	Apathetic	1	2	3	4	5	6	7	N	Alert
2.	Obstructive	1	2	3	4	5	6	7	N	Responsible
3.	Uncertain	1	2	3	4	5	6	7	N	Confident
4.	Dependent	1	2	3	4	5	6	7	N	Initiating
TEACHER BEHAVIOR										
5.	Partial	1	2	3	4	5	6	7	N	Fair
6.	Autocratic	1	2	3	4	5	6	7	N	Democratic
7.	Aloof	1	2	3	4	5	6	7	N	Responsive
8.	Restricted	1	2	3	4	5	6	7	N	Understanding
9.	Harsh	1	2	3	4	5	6	7	N	Kindly
10.	Dull	1	2	3	4	5	6	7	N	Stimulating
11.	Stereotyped	1	2	3	4	5	6	7	N	Original
12.	Apathetic	1	2	3	4	5	6	7	N	Alert
13.	Unimpressive	1	2	3	4	5	6	7	N	Attractive
14.	Evading	1	2	3	4	5	6	7	N	Responsible
15.	Erratic	1	2	3	4	5	6	7	N	Steady
16.	Excitable	1	2	3	4	5	6	7	N	Poised
17.	Uncertain	1	2	3	4	5	6	7	N	Confident
18.	Disorganized	1	2	3	4	5	6	7	N	Systematic
19.	Inflexible	1	2	3	4	5	6	7	N	Adaptable
20.	Pessimistic	1	2	3	4	5	6	7	N	Optimistic
21.	Immature	1	2	3	4	5	6	7	N	Integrated
22.	Narrow	1	2	3	4	5	6	7	N	Broad

FIGURE 1

Generalized Descriptions of Critical Behaviors of Teachers

Effective Behaviors	Ineffective Behaviors
1. Alert, appears enthusiastic.	1. Is apathetic, dull, appears bored.
2. Appears interested in pupils and classroom activities.	2. Appears uninterested in pupils and classroom activities.
3. Cheerful, optimistic.	3. Is depressed, pessimistic; appears unhappy.
4. Self-controlled, not easily upset.	4. Looses temper, is easily upset.
5. Likes fun, has a sense of humor.	5. Is overly serious, too occupied for humor.
6. Recognizes and admits own mistakes.	6. Is unaware of, or fails to admit, own mistakes.
7. Is fair, impartial, and objective in treatment of pupils.	7. Is unfair or partial in dealing with pupils.
8. Is patient.	8. Is impatient.
9. Shows understanding and sympathy in working with pupils.	9. Is short with pupils, uses sarcastic remarks, or in other ways shows lack of sympathy with pupils.
10. Is friendly and courteous in relations with pupils.	10. Is aloof, and removed in relations with pupils.
11. Helps pupils with personal as well as educational problems.	11. Seems unaware of pupils' personal needs and problems.
12. Commends effort and gives praise for work well done.	12. Does not commend pupils, is disapproving, hypercritical.
13. Accepts pupils' efforts as sincere.	13. Is suspicious of pupil motives.
14. Anticipates reactions of others in social situations.	14. Does not anticipate reactions of others in social situations.
15. Encourages pupils to try to do their best.	15. Makes no effort to encourage pupils to try to do their best.
16. Classroom procedure is planned and well organized.	16. Procedure is without plan, disorganized.
17. Classroom procedure is flexible within over-all plan.	17. Shows extreme rigidity of procedure, inability to depart from plan.
18. Anticipates individual needs.	18. Fails to provide for individual differences and needs of pupils.
19. Stimulates pupils through interesting and original materials and techniques.	19. Uninteresting materials and teaching techniques used.
20. Conducts clear practical demonstrations and explanations.	20. Demonstrations and explanations are not clear and are poorly conducted.
21. Is clear and thorough in giving directions.	21. Directions are incomplete, vague.

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Figure 1 (Continued)

22. Encourages pupils to work through their own problems and evaluate their accomplishments.	22. Fails to give pupils opportunity to work out own problems or evaluate their own work.
23. Disciplines in quiet, dignified, and positive manner.	23. Reprimands at length, ridicules, resorts to cruel or meaningless forms of correction.
24. Gives help willingly.	24. Fails to give help or gives it grudgingly.
25. Foresees and attempts to resolve potential difficulties.	25. Is unable to foresee and resolve potential difficulties.

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GLOSSARY

(To be used with classroom observation record.)

Pupil Behaviors

1. Apathetic-Alert Pupil Behavior

Apathetic	Alert
1. Listless.	1. Appear anxious to recite & participate.
2. Bored-acting.	2. Watch teacher attentively.
3. Enter into activities half-heartedly.	3. Work concentratedly.
4. Restless.	4. Seem to respond eagerly.
5. Attention wanders.	5. Prompt and ready to take part in activities when they begin.
6. Slow in getting under way.	

2. Obstructive-Responsible Pupil Behavior

Obstructive	Responsible
1. Rude to one another and/or to teacher.	1. Courteous, co-operative, friendly with each other and with teacher.
2. Interrupting; demanding attention; disturbing.	2. Complete assignments without complaining or unhappiness.
3. Obstinate; sullen.	3. Controlled voices.
4. Refusal to participate.	4. Received help and criticism attentively.
5. Quarrelsome; irritable.	5. Asked for help when needed.
6. Engaged in name-calling and/or tattling.	6. Orderly without specific directions from teacher.
7. Unprepared.	7. Prepared.

3. Uncertain-Confident Pupil Behavior

Uncertain	Confident
1. Seem afraid to try; unsure.	1. Seem anxious to try new problems or activities.
2. Hesitant; restrained.	2. Undisturbed by mistakes.
3. Appear embarrassed.	3. Volunteer to recite.
4. Frequent display of nervous habits, nail-biting, etc.	4. Enter freely into activities.
5. Appear shy and timid.	5. Appear relaxed.
6. Hesitant and/or stammering speech.	6. Speak with assurance.

4. Dependent-Initiating Pupil Behavior

Dependent	Initiating
1. Rely on teacher for explicit directions.	1. Volunteer ideas and suggestions.
2. Show little ability to work things out for selves.	2. Showed resourcefulness.
3. Unable to proceed when initiative called for.	3. Take lead willingly.
4. Appear reluctant to take lead or to accept responsibility.	4. Assume responsibilities without evasion.

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Figure 2 (Continued)

Teacher Behaviors

5. Partial-Fair Teacher Behavior

Partial	Fair
1. Repeatedly slighted a pupil.	1. Treated all pupils approximately equally.
2. Corrected or criticized certain pupils repeatedly.	2. In case of controversy pupil allowed to explain his side.
3. Repeatedly gave a pupil special advantages.	3. Distributed attention to many pupils.
4. Gave most attention to one or a few pupils.	4. Rotated leadership impartially.
5. Showed prejudice (favorable or unfavorable) towards some social, racial, or religious groups.	5. Based criticism or praise on factual evidence, not hearsay.
6. Expressed suspicion of motives of a pupil.	

6. Autocratic-Democratic Teacher Behavior

Autocratic	Democratic
1. Tells pupils each step to take.	1. Guided pupils without being mandatory.
2. Intolerant of pupils' ideas.	2. Exchanged ideas with pupils.
3. Mandatory in giving directions; orders to be obeyed at once.	3. Encouraged (asked for) pupil opinion.
4. Interrupted pupils although their discussion was relevant.	4. Encouraged pupils to make own decisions.
5. Always directed rather than participated.	5. Entered into activities without domination.

7. Aloof-Responsive Teacher Behavior

Aloof	Responsive
1. Stiff and formal in relations with pupils.	1. Approachable to all pupils.
2. Apart; removed from class activity.	2. Participates in class activity.
3. Condescending to pupils.	3. Responded to reasonable requests and/or questions.
4. Routine and subject matter only concern; pupils as persons ignored.	4. Speaks to pupils as equals.
5. Referred to pupil as "this child" or "that child."	5. Commends effort.
	6. Gives encouragement.
	7. Recognized individual differences.

8. Restricted-Understanding Teacher Behavior

Restricted	Understanding
1. Recognized only academic accomplishments of pupils, no concern for personal problems.	1. Showed awareness of a pupil's personal emotional problems and needs.
2. Completely unsympathetic with a pupil's failure at a task.	2. Was tolerant of error on part of pupil.
3. Called attention only to very good or very poor work.	3. Patient with a pupil beyond ordinary limits of patience.
4. Was impatient with a pupil.	4. Showed what appeared to be sincere sympathy with a pupils' viewpoint.

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Figure 2 (Continued)

9. Harsh-Kindly Teacher Behavior

Harsh

1. Hypercritical; fault-finding.
2. Cross; curt.
3. Depreciated pupil's efforts; was sarcastic.
4. Scolds a great deal.
5. Lost temper.
6. Used threats.
7. Permitted pupils to laugh at mistakes of others.

Kindly

1. Goes out of way to be pleasant and/or to help pupils; friendly.
2. Give a pupil a deserved compliment.
3. Found good things in pupils to call attention to.
4. Seemed to show sincere concern for a pupil's personal problem.
5. Showed affection without being demonstrative.
6. Disengaged self from a pupil without bluntness.

10. Dull-Stimulating Teacher Behavior

Dull

1. Uninteresting, monotonous explanations.
2. Assignments provide little or no motivation.
3. Fails to provide challenge.
4. Lack of animation.
5. Failed to capitalize on pupil interests.
6. Pedantic, boring.
7. Lacks enthusiasm; bored acting.

Stimulating

1. Highly interesting presentation; gets and holds attention without being flashy.
2. Clever and witty, though not smart-alecky or wise-cracking.
3. Enthusiastic; animated.
4. Assignments challenging.
5. Took advantage of pupil interests.
6. Brought lesson successfully to a climax.
7. Seemed to provoke thinking.

11. Stereotyped-Original Teacher Behavior

Stereotyped

1. Used routine procedures without variation.
2. Would not depart from procedure to take advantage of a relevant question or situation.
3. Presentation seemed unimaginative.
4. Not resourceful in answering questions or providing explanations.

Original

1. Used what seemed to be original and relatively unique devices to aid instruction.
2. Tried new materials or methods.
3. Seemed imaginative and able to develop presentation around a question or situation.
4. Resourceful in answering question; had many pertinent illustrations available.

12. Apathetic-Alert Teacher Behavior

Apathetic

1. Seemed listless; languid; lacked enthusiasm.
2. Seemed bored by pupils.
3. Passive in response to pupils.
4. Seemed preoccupied.
5. Attention seemed to wander.
6. Sat in chair most of time; took no active part in class activities.

Alert

1. Appeared buoyant; wide-awake; enthusiastic about activity of the moment.
2. Kept constructively busy.
3. Gave attention to, and seemed interested in, what was going on in class.
4. Prompt to "pick up" class when pupils' attention showed signs of lagging.

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Figure 2 (Continued)

Unimpressive-Attractive Teacher Behavior

Unimpressive	Attractive
1. Untidy or sloppily dressed.	1. Clean and neat.
2. Inappropriately dressed.	2. Well-groomed; dress showed good taste.
3. Drab, colorless.	3. Posture and bearing attractive.
4. Posture and bearing unattractive.	4. Free from distracting personal habits.
5. Possessed distracting personal habits.	5. Plainly audible speech; good expression; agreeable voice tone; good inflection.
6. Mumbled; inaudible speech; limited expression; disagreeable voice tone; poor inflection.	

14. Evading-Responsible Teacher Behavior

Evading	Responsible
1. Avoided responsibility; disinclined to make decisions.	1. Assumed responsibility; makes decisions as required.
2. "Passed the buck" to class, to other teachers, etc.	2. Conscientious.
3. Left learning to pupil, failing to give adequate help.	3. Punctual.
4. Let a difficult situation get out of control.	4. Painstaking; careful.
5. Assignments and directions indefinite.	5. Suggested aids to learning.
6. No insistance on either individual or group standards.	6. Controlled a difficult situation.
7. Inattentive with pupils.	7. Gave definite directions.
8. Cursory.	8. Called attention to standards of quality.
	9. Attentive to class.
	10. Thorough.

15. Erratic-Steady Teacher Behavior

Erratic	Steady
1. Impulsive; uncontrolled; temperamental; unsteady.	1. Calm; controlled.
2. Course of action easily swayed by circumstances of the moment.	2. Maintained progress toward objective.
3. Inconsistent.	3. Stable, consistent, predictable.

16. Excitable-Poised Teacher Behavior

Excitable	Poised
1. Easily disturbed and upset; flustered by classroom situation.	1. Seemed at ease at all times.
2. Hurried in class activities; spoke rapidly using many words and gestures.	2. Unruffled by situation that developed in classroom; dignified without being stiff or formal.
3. Was "jumpy"; nervous.	3. Unhurried in class activities; spoke quietly and slowly.
	4. Successfully diverted attention from a stress situation in classroom.

17 Uncertain-Confident Teacher Behavior

Uncertain	Confident
1. Seemed unsure of self; faltering, hesitant.	1. Seemed sure of self; self-confident in relations with pupils.
2. Appeared timid and shy.	2. Undisturbed and unembarrassed by mistakes and/or criticism.
3. Appeared artificial.	
4. Disturbed and embarrassed by mistakes and/or criticism.	

Figure 2 (Continued)

Disorganized-Systematic Teacher Behavior

Disorganized	Systematic
1. No plan for class work.	1. Evidence of a planned though flexible procedure.
2. Unprepared.	2. Well prepared.
3. Objectives not apparent; undecided as to next step.	3. Careful in planning with pupils.
4. Wasted time.	4. Systematic about procedure of class.
5. Explanations not to the point.	5. Had anticipated needs.
6. Easily distracted from matter at hand.	6. Provided reasonable explanations.
	7. Held discussion together; objectives apparent.

Inflexible-Adaptable Teacher Behavior

Inflexible	Adaptable
1. Rigid in conforming to routine.	1. Flexible in adapting explanations.
2. Made no attempt to adapt materials to individual pupils.	2. Individualized materials for pupils as required; adapted activities to pupils.
3. Appeared incapable of modifying explanation or activities to meet particular classroom situations.	3. Took advantage of pupils' questions to further clarify ideas.
4. Impatient with interruptions and digressions.	4. Met an unusual classroom situation competently.

Pessimistic-Optimistic Teacher Behavior

Pessimistic	Optimistic
1. Depressed; unhappy.	1. Cheerful; good-natured.
2. Skeptical.	2. Genial.
3. Called attention to potential "bad."	3. Joked with pupils on occasion.
4. Expressed hopelessness of "education today," the school system, or fellow educators.	4. Emphasized potential "good."
5. Noted mistakes; ignored good points.	5. Looked on bright side; spoke optimistically of the future.
6. Frowned a great deal; had unpleasant facial expression.	6. Called attention to good points; emphasized the positive.

Immature-Integrated Teacher Behavior

Immature	Integrated
1. Appeared naive in approach to classroom situations.	1. Maintained class as center of activity; kept self out of spotlight; referred to class's activities, not own.
2. Self-pitying; complaining; demanding.	2. Emotionally well controlled.
3. Boastful; conceited.	

Narrow-Broad Teacher Behavior

Narrow	Broad
1. Presentation strongly suggested limited background in subject or material; lack of scholarship.	1. Presentation suggested good background in subject; good scholarship suggested.
2. Did not depart from text.	2. Drew examples and explanations from various sources and related fields.
3. Failed to enrich discussions with illustrations from related areas.	3. Showed evidence of broad cultural background in science, art, literature, history, etc.
4. Showed little evidence of breadth of cultural background in such areas as science, arts, literature, and history.	4. Gave satisfying, complete, and accurate answers to questions.
5. Answers to pupils' questions incomplete or inaccurate.	5. Was constructively critical in approach to subject matter.
6. Noncritical approach to subject.	

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INSTRUMENT 11

Person Observed_____ Observer_____

Date: _____ ID No. _____

TUCKMAN TEACHER FEEDBACK FORM (Short Form)

1.	ORIGINAL	___:___:___:___:___:___:___	CONVENTIONAL
2.	PATIENT	___:___:___:___:___:___:___	IMPATIENT
3.	COLD	___:___:___:___:___:___:___	WARM
4.	HOSTILE	___:___:___:___:___:___:___	AMIABLE
5.	CREATIVE	___:___:___:___:___:___:___	ROUTINIZED
6.	INHIBITED	___:___:___:___:___:___:___	UNINHIBITED
7.	ICONOCLASTIC	___:___:___:___:___:___:___	RITUALISTIC
8.	GENTLE	___:___:___:___:___:___:___	HARSH
9.	UNFAIR	___:___:___:___:___:___:___	FAIR
10.	CAPRICIOUS	___:___:___:___:___:___:___	PURPOSEFUL
11.	CAUTIOUS	___:___:___:___:___:___:___	EXPERIMENTING
12.	DISORGANIZED	___:___:___:___:___:___:___	ORGANIZED
13.	UNFRIENDLY	___:___:___:___:___:___:___	SOCIABLE
14.	RESOURCEFUL	___:___:___:___:___:___:___	UNCERTAIN
15.	RESERVED	___:___:___:___:___:___:___	OUTSPOKEN
16.	IMAGINATIVE	___:___:___:___:___:___:___	EXACTING
17.	ERRATIC	___:___:___:___:___:___:___	SYSTEMATIC
18.	AGGRESSIVE	___:___:___:___:___:___:___	PASSIVE
19.	ACCEPTING (people)	___:___:___:___:___:___:___	CRITICAL
20.	QUIET	___:___:___:___:___:___:___	BUBBLY
21.	OUTGOING	___:___:___:___:___:___:___	WITHDRAWN
22.	IN CONTROL	___:___:___:___:___:___:___	ON THE RUN
23.	FLIGHTY	___:___:___:___:___:___:___	CONSCIENTIOUS
24.	DOMINANT	___:___:___:___:___:___:___	SUBMISSIVE
25.	OBSERVANT	___:___:___:___:___:___:___	PREOCCUPIED
26.	INTROVERTED	___:___:___:___:___:___:___	EXTRAVERTED
27.	ASSERTIVE	___:___:___:___:___:___:___	SOFT-SPOKEN
28.	TIMID	___:___:___:___:___:___:___	ADVENTUROUS
		7 6 5 4 3 2 1	

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Summary Formula and Score for the Four Dimensions

I. Creativity

Item (1 + 5 + 7 + 16) - (6 + 11 + 28) + 18
(__ + _ + _ + __) - (_ + __ + __) + 18 = __

II. Dynamism (dominance and energy)

Item (18 + 21 + 24 + 27) - (15 + 20 + 26) + 18
(__ + __ + __ + __) - (__ + __ + __) + 18 = __

III. Organized Demeanor (organization and control)

Item (14 + 22 + 25) - (10 + 12 + 17 + 23) + 26
(__ + __ + __) - (__ + __ + __ + __) + 26 = __

IV. Warmth and Acceptance

Item (2 + 8 + 19) - (3 + 4 + 9 + 13) + 26
(_ + _ + __) - (_ + _ + _ + __) + 26 = __

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Tuckman Teacher Feedback Form

The Tuckman Teacher Feedback Form (12) was used to assess four dimensions of teaching including: 1) Creativity, 2) Dynamism (dominance and energy), 3) Organized Demeanor (organization and control), and 4) Warmth and Acceptance. A seven point scale was used to rate each of the 28 items (the observers completed the instrument immediately after each day's observation period). Instrument 11 shows a copy of the rating sheet used as a part of the study. The four dimensions were computed as outlined on the instrument rating sheet.

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